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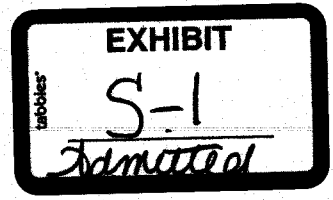
Docket #(s): E-01345A-06-0464

Exhibit #: S-1, APS 1-3, M1-b, DEAA3

Arizona Corporation Commission
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STAFF REPORT

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

ARIZONA PUBLIC SERVICE COMPANY

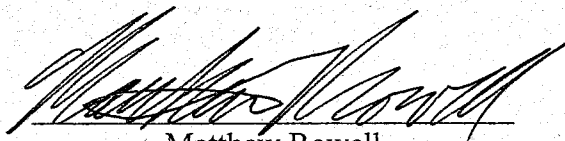
DOCKET NO. E-01345A-06-0464

IN THE MATTER OF ARIZONA PUBLIC SERVICE COMPANY – APPLICATION FOR
AUTHORIZATION TO ACQUIRE POWER PLANT

December 18, 2006

STAFF ACKNOWLEDGMENT

The Staff Report for APS Docket No. E-01345A-06-0464 was the responsibility of the Staff member listed below. Matthew Rowell reviewed APS' RFP, responses to the RFP and APS' evaluation process.

A handwritten signature in black ink, appearing to read "Matthew Rowell", is written over a horizontal line.

Matthew Rowell
Chief Economist

**EXECUTIVE SUMMARY
ARIZONA PUBLIC SERVICE COMPANY
DOCKET NO. E-01345A-06-0464**

On July 14, 2006 Arizona Public Service Company ("APS") filed a request for authorization to acquire a new generation resource within the Yuma load pocket either through direct contracts with vendors and contractors or through a contract with a developer. APS filed this request because it believes that a self build option is the most economical way to meet the growing demand for power in the Yuma area and Decision No. 67744 prohibits APS from pursuing a self build option without Commission approval. Staff has reviewed the RFP APS issued for the acquisition of resources to serve the Yuma area, the responses to the RFP and APS' evaluation of the responses. Staff recommends approval of APS' application.

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1. INTRODUCTION

On July 14, 2006 Arizona Public Service Company ("APS") filed a request for authorization to acquire a new generation resource within the Yuma load pocket either through direct contracts with vendors and contractors or through a contract with a developer. APS filed this request because it believes that a self build option is the most economical way to meet the growing demand for power in the Yuma area and Decision No. 67744 prohibits APS from pursuing a self build option without Commission approval.

At this time APS is not seeking any ratemaking or prudence determination regarding the new generation in the Yuma area. APS represents that it plans on seeking rate treatment for the new Yuma generation in a future rate case.

2. DECISION NO. 67744

Decision No. 67744 approved (as modified) the Settlement Agreement between APS, Commission Staff, and a wide variety of other parties to APS' June 2003 rate case filing. Paragraph 74 of the Settlement Agreement contains the relevant requirements for this proceeding: "APS will not pursue any self-build option having an in service date prior to January 1, 2015, unless expressly authorized by the Commission." The rest of paragraph 74 includes certain exemptions from this requirement which were modified by the Commission in Finding of Fact 33 of Decision No. 67744.¹ With or without the Commission's modification to the Settlement Agreement, Staff believes that both options APS has identified for new generation in the Yuma area are self build option and thus require Commission approval.

The Settlement Agreement and Decision No. 67744 did include a delineation of what an application before the Commission by APS for self build authority should include (see paragraph 75 of the Settlement Agreement.) APS' July 13, 2006 application combined with APS' responses to Staff's data requests lead Staff to believe that APS is making a good faith effort to comply with the requirements of Decision No. 67744. Additionally, Staff believes there is enough information contained within the application and the responses to Staff's data requests to make an informed recommendation to the Commission.

Paragraph 75 of the Settlement Agreement delineated subject areas which any APS request for self build must address. Those subject areas and Staff's assessment of how APS' current application satisfies them are as follows:

¹ The exemptions identified in the settlement agreement are as follows: "Self build does not include the acquisition of a generating unit or interest in a generating unit from a non-affiliated merchant or utility generator, the acquisition of temporary generation needed for system reliability, distributed generation of less than fifty MW per location, renewable resources, or the up-rating of APS generation, which up-rating shall not include the installation of new units." Finding of Fact 33 of Decision No. 67744 altered these exemptions such that the definition of "self build" does include "the acquisition of a generating unit or interest in a generating unit from any merchant or utility generator..."

- a. The Company's specific unmet needs for additional long-term resources.

Exhibit A to APS' application specifies the unmet needs for additional resources APS anticipates over the next several years. The application, the RFP, and the confidential material provided in response to Staff's data request contain additional information regarding APS' unmet needs.

- b. The Company's efforts to secure adequate and reasonably-priced long-term resources from the competitive wholesale market to meet these needs.

APS' application contains a description of the process APS went through in issuing the RFP and evaluating responses to the RFP. Confidential material provided in response to Staff's data requests contained detailed information regarding the responses to the RFP and APS' evaluation of those responses.

- c. The reasons why APS believes those efforts have been unsuccessful, either in whole or in part.

APS application indicates that the bids for Purchase Power Agreements ("PPAs") were substantially more expensive than the bids for generation asset sales and APS' own self build option.

- d. The extent to which the request to self-build generation is consistent with any applicable Company resource plans and competitive resource acquisition rules or orders resulting from the workshop/rulemaking proceeding described in paragraph 79 (of the Settlement Agreement.)

Paragraph 79 of the Settlement Agreement required Staff to hold workshops and possibly initiate a rulemaking proceeding on resource planning and competitive procurement issues. A generic docket has been opened to address these issues (Docket No. E-00000E-05-0431) and workshops have been held. However, the workshop process is not complete and there currently are no applicable Company resource plans or competitive resource acquisition rules or orders resulting from the workshop/rulemaking proceeding.

- e. The anticipated life-cycle cost of the proposed self-build option in comparison with suitable alternatives available from the competitive market for a comparable period of time.

The confidential information provided in response to Staff's data requests included detailed cost comparisons of all of the bids APS received as well as to APS' self build option.

3. THE YUMA LOAD POCKET

The Yuma area is currently a Load Pocket. Essentially, this means that the total peak demand exceeds the total transmission import capability. This necessitates running local generation during peak periods. This also means that growth in peak load must be accommodated through local generation.

APS' forecasts indicate that the Yuma area's peak load will grow such that it will exceed total available resources (transmission import capacity and local generation) in 2008. Because the transmission import capacity is already fully utilized during peak periods, this peak load growth will need to be served with local generation. Exhibit A to APS' application summarized the forecasted peak load and available resources in the Yuma area and is reproduced as Table 1 below.

Table 1: Yuma Area Forecasted Loads and Resources

	2007	2008	2009	2010
Load Requirements with Reserves	499	519	539	559
Existing APS Generation and Transmission	351	351	351	351
Existing 3rd Party Resources	167	162	165	167
Total Resources	518	513	516	518
Resources Over/(Under) Need	19	(6)	(23)	(41)

Staff did review APS' forecasting methodology as part of this case. However, because APS is not seeking cost recovery at this time, Staff does not believe that an assessment of APS' forecasting is necessary or appropriate at this time. Such an assessment of APS' forecasting methodology would be appropriate in the context of a prudence review for ratemaking purposes. Providing an assessment at this time may inappropriately prejudice a future prudence review.

4. THE RFP PROCESS

APS represents that their forecasts first indicated a likely resource shortfall in the Yuma area in the summer of 2005. In response to this forecasted shortfall APS issued an RFP for generation resources in the Yuma area on September 19, 2005 ("the Yuma RFP.") The RFP had the following characteristics:

1. The RFP specified a need between 100 and 200 MW of capacity.

2. The generation had to be deliverable inside the Yuma Load pocket.
3. The generation needed an in-service date between June 1, 2006 and June 1, 2008.
4. Any proposed purchased power agreements had to be at least 10 years in duration (because the transmission constraint is not expected to be alleviated soon.)
5. Multiple units were identified as preferable to a single large unit for reliability reasons.
6. APS' Yucca Power Plant site was offered as a potential site for any new generation, but the RFP indicated that it should not be inferred that the Yucca site was preferred by APS.
7. APS offered to take the lead in procuring the necessary gas transportation capacity necessary for a gas fired plant(s) at the Yucca location.
8. APS initiated interconnection requests at Yucca that would be made available to a winning bidder if the Yucca site was selected.

APS hosted a bidders' teleconference on September 21, 2005 and a tour of the Yucca site on September 27, 2005. Given that 21 entities participated in the teleconference and six entities attended the site tour, it appears to Staff that the RFP was well publicized. Further, in response to the RFP, APS received 25 proposals from 11 different entities. This is further indication that the RFP was well publicized. The proposals included offers to build and sell generating units to APS, offers to build generating units and sell APS power through a multi-year purchase power agreement ("PPA"), and hybrids of those two approaches.

Essentially, APS used a three phase approach to evaluating the proposals. First APS used a reliability based screen to eliminate proposals that did not meet specific reliability requirements. The remaining proposals were then evaluated based on their cost characteristics and a short list was developed. APS used a standard Busbar cost analysis for this part of the evaluation. Once the short list was determined APS met with each company on the short list and allowed them to refresh their bids.

Staff's review of APS' reliability based screen found that it was straightforward and that it was applied consistently to each of the proposals. The reliability screen essentially eliminated any project with a loss of load probability ("LOLP") worse than one outage in 10 years. APS' assessment of LOLP was based on their knowledge of each of the proposed technologies. The technologies proposed by the bidders were largely "off the shelf," that is, bidders proposed to build generators that are currently readily available from suppliers and that are currently in use (except for GE LMS 100.) Thus APS had access to actual data on which to base their LOLP assessments. Several proposals were eliminated based on reliability concerns.

The different technologies proposed by the bidders are summarized in table 2.

Table 2: Proposed Technologies

Technology	Number of Proposals
GE LM 6000	10
GE 7EA	5
GE LMS100	1
Wartsila 20V34SG	6
IC Oil (Distributed)	1
CC/Solar	1
Siemens Westinghouse 5000F	1

After its initial reliability and economic analysis, APS selected 12 proposals from 5 entities for its short list. These 5 bidders were afforded the opportunity to refresh their bids. The analysis of these 12 bids essentially consisted of the calculation of the net present value (NPV) over 30 years of the cost to APS of each proposal. The NPV analysis identified one proposal as being clearly superior to the others on a cost basis.

Staff's review of APS' evaluation process revealed no irregularities. It appears to Staff that APS transferred the cost data from the bidder supplied material in to its evaluation documents and spreadsheets accurately. It also appears that the bids were treated fairly and equitably; that is, APS used a consistent methodology to calculate the NPV and busbar cost of each bid. (Of course the methodology had to be altered somewhat depending on whether a generator purchase or a PPA was being evaluated.)

5. STAFF RECOMMENDATION

The proposal selected by APS as superior to the others is a proposal to build two GE LM 6000 units at the Yucca Power Plant site and sell them to APS upon their completion. This project has a total capacity of 96 MW.

APS is seeking Commission authorization to either purchase the two GE LM 6000 units from the developer who made this proposal *or* contract directly with equipment suppliers and contracts to have two APS owned GE LM 6000 units built. Staff believes that APS' request is reasonable and recommends that the Commission issue an order authorizing APS to pursue either of these two options. Allowing APS the option to build the plants themselves without the developer's involvement will provide APS with leverage in its negotiations with the developer that may result in the developer reducing its price. Without the self build option available, APS would have little leverage in negotiations with a developer and a higher than necessary price could be imposed on APS and eventually its customers.

Staff's recommendation is based on its review of an extensive amount of confidential information provided by APS that identified the ownership of two GE LM 6000 units as the least

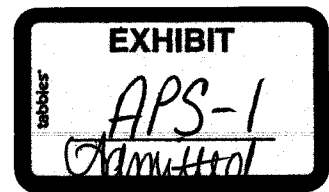
cost option for meeting peak demand in the Yuma area. In order to insure that the actual cost of building or buying these plants does not exceed the costs identified in the information provided to Staff, Staff recommends that the same information provided by APS in this case to justify its selection of the self build option be made available to Staff during any future case where the new plants in the Yuma area are being considered for ratemaking treatment.

6. OTHER ISSUES

Because the Yuma area is a load pocket, all of the responses to the RFP had to include new generation within the Yuma area. For practical reasons there are only two locations in the Yuma area that can facility generators of the size needed to meet APS' needs. APS' needs in the Yuma area are limited to peaking generation. These three factors greatly limited the options available to responders to the Yuma RFP. When responding to more general RFPs (such as the "Reliability RFP" issued by APS in May 2005) a wide variety of different options can be proposed. Proposals can include new or existing generation or a combination of both. Proposals can include generation resources that are widely distributed geographically.

Because of the limited nature of the Yuma RFP, the technical aspects of the proposals received were necessarily similar to each other (and to APS' self build option.) For this reason, evaluation of these proposals was more straightforward than what would be necessary for a more general RFP. For instance, comparing two proposals for new peaking plants at one site is quite a bit simpler than comparing two proposals for plants that are greatly separated geographically (because, for example, the later instance would include significant transmission issues.)

This relative simplicity of the Yuma RFP compared to other more general RFPs, causes Staff to warn against any party perceiving this case to be a good indicator of how a future case would progress should APS seek authority to self build after evaluating the results of a more general RFP.



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DIRECT TESTIMONY OF PATRICK DINKEL
On Behalf of Arizona Public Service Company

Docket No. E-01345A-06-0464

November 20, 2006

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1 **DIRECT TESTIMONY OF PATRICK DINKEL**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket No. E-01345A-06-0464)**

4 I. INTRODUCTION

5 Q. **PLEASE STATE YOUR NAME AND POSITION WITH APS.**

6 A. My name is Patrick Dinkel. I am the Director of Corporate Planning and
7 Resource Acquisition for Arizona Public Service Company ("APS" or
8 "Company").

9 Q. **WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL**
10 **BACKGROUND?**

11 A. I received a Bachelors of Science degree from Marymount College and a
12 Masters of Business Administration from Northern Arizona University. I joined
13 APS in 1986. Before becoming Director of Corporate Planning and Resource
14 Acquisitions in 2004, I was the Manager of Corporate Planning, and the
15 Manager of Business Unit Analysis and Reporting. Before that, I held various
16 positions within APS and Pinnacle West Capital Corporation ("Pinnacle West"),
17 primarily within the financial planning and budgeting areas.

18 Q. **WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**
19 **PROCEEDING?**

20 A. My Direct Testimony supports APS's request for authorization from the Arizona
21 Corporation Commission ("Commission") to pursue the construction and
22 acquisition of a generation facility to be located in Yuma, Arizona, as required
23 by Decision No. 67744 (April 7, 2005). In support of the request, I will discuss
24 the need for a new generating facility in Yuma, the request for proposals
25 ("RFP") process that led to the selection of the identified final proposals, and
26 related considerations under Decision No. 67744.

1 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

2 A. Because of its location and constrained transmission access, Yuma is considered
3 a "load pocket." That means there are electrical limits to the amount of power
4 that can be imported to serve the Yuma load requirements. Consequently, Yuma
5 load must be met by a balance between power imported over the transmission
6 system and power produced by resources physically located within the load
7 pocket. The customer load in Yuma is growing at a rapid rate and Yuma is fast
8 approaching the limits on the amount of power that can be supplied by the
9 existing generating and transmission facilities. Therefore, to ensure continuing
10 reliability and maintain adequate reserve margins, there is a need for a new
11 generating resource capable of delivering power within the Yuma load pocket by
12 the summer of 2008.

13 To identify the most economic resource option to meet this need, and consistent
14 with Decision No. 67744 ("Settlement Order"), APS conducted an RFP seeking
15 generation resources from the competitive market. In response to the RFP, APS
16 received 25 proposals from the competitive wholesale market, including both
17 long-term purchased power agreements ("PPAs") and asset purchase proposals
18 from third party developers. Analysis of the proposals received demonstrated
19 that the most economic alternative, consistent with the internal delivery
20 reliability requirement, was an asset purchase proposal from a third party
21 developer upon the completion of their construction of a new generation facility
22 located in Yuma at APS's Yucca Power Plant.

23
24 To ensure the acquisition of the most economic resource for APS's customers,
25 and consistent with the Settlement Order, APS also sought cost estimates
26 directly from vendors and contractors in the supplier market for equipment and

1 contract services needed to construct a new generating facility. For ease of
2 reference, I will refer to this throughout my testimony as the "direct build"
3 option. That effort served two purposes. First, it allowed the Company to
4 compare prices received in the RFP against actual market prices for the
5 equipment and contract services needed to construct the facility. Second, it
6 allowed the Company to consider whether directly contracting for construction
7 would be a more economic alternative compared to purchasing the plant on a
8 turnkey basis from a third party developer. The analysis showed that the direct
9 build approach could be the most economic option.

10 The final determination as to whether an asset purchase from a third party
11 developer or direct build by APS is the most economic option for serving
12 customer load will be based on the actual prices for asset purchase and for the
13 equipment and construction that will be known at the time APS can make the
14 necessary contractual commitments. Upon receiving the requested authorization
15 from the Commission, APS will be able to make binding commitments on cost
16 and scheduling and determine which option (asset purchase or direct build) is
17 the most economic and best meets the needs of APS's Yuma customers.

18
19 **II. NECESSITY FOR COMMISSION AUTHORIZATION FOR SELF-BUILD**
20 **UNDER THE SETTLEMENT ORDER**

21 **Q. WHY IS APS SEEKING COMMISSION AUTHORIZATION IN THIS**
22 **PROCEEDING?**

23 **A.** APS conducted a competitive procurement process and determined that
24 ownership of new generation assets in Yuma is the most beneficial option for its
25 customers. The Settlement Order requires that APS obtain Commission
26 approval prior to pursuing any self-build generation option with an in-service
date prior to January 1, 2015. The Settlement Order defines "self-build" as any

1 acquisition of a power plant either from a third party or through an APS direct
2 build, thereby including within "self build" essentially all ownership options.

3 **Q. WHY DOES APS'S REQUEST SEEK AUTHORIZATION TO PURSUE**
4 **MORE THAN ONE POTENTIAL SELF-BUILD OPTION?**

5 A. Because the Settlement Order requires Commission approval prior to pursuing a
6 self-build option, the Company is unable to make the contractual and financial
7 commitments necessary for construction or acquisition at this time.
8 Consequently, APS is not able to secure firm or final commitments on
9 scheduling and price from third parties. To allow APS to select the most
10 economic resource based on firm price and schedule, APS has included in its
11 Application the two most economic options, both of which are within the
12 definition of "self-build." Upon receiving the requested authorization from the
13 Commission, APS will be able to make and obtain binding commitments on cost
14 and scheduling. Upon receiving those binding commitments, APS will have the
15 information needed to make a final determination as to which option is the most
16 appropriate.

17 **Q. DOES APS'S APPLICATION IN THIS PROCEEDING ASK THE**
18 **COMMISSION TO GRANT ULTIMATE REGULATORY TREATMENT**
19 **FOR THE ACQUISITION COST OF THE YUMA FACILITY?**

20 A. No. APS is only seeking the required authorization under the Settlement Order
21 to acquire a generation asset. The Company will seek ultimate regulatory
22 treatment for acquisition costs in a later rate proceeding.

23 **Q. WHAT FACTORS HAS APS ADDRESSED TO SUPPORT ITS REQUEST**
24 **TO PURSUE A SELF-BUILD OPTION?**

1 A. The Settlement Order requires APS to address five items identified in Section
2 IX, Paragraph 75, of the Settlement Agreement adopted in that Order. That
3 paragraph provides as follows:

4 75. As part of any APS request for Commission authorization to self-
5 build generation prior to 2015, APS will address:

- 6 a. The Company's specific unmet needs for additional long-
7 term resources.
- 8 b. The Company's efforts to secure adequate and reasonably-
9 priced long-term resources from the competitive wholesale
10 market to meet these needs.
- 11 c. The reasons why APS believes those efforts have been
12 unsuccessful, either in whole or in part.
- 13 d. The extent to which the request to self-build generation is
14 consistent with any applicable Company resource plans and
15 competitive resource acquisition rules or orders resulting
16 from the workshop/rulemaking proceeding described in
17 paragraph 79.
- 18 e. The anticipated life-cycle cost of the proposed self-build
19 option in comparison with suitable alternatives available
20 from the competitive market for a comparable period of
21 time.

22 APS has addressed each of these in its Application and the supporting
23 documentation. My testimony summarizes the Company's support for its
24 Application.

25 Q. PLEASE EXPLAIN.

26 A. The following paragraphs summarize how APS has addressed each factor set out
in Paragraph 75 of the Settlement Agreement:

- a. APS identified the specific need for generation in Yuma in the Loads and
Resources Plan attached to its initial Application.
- b. The Application filed in this docket described the RFP process conducted
by APS to seek long-term resources from the competitive wholesale

1 market as required by paragraph 75(b). The Company provided the
2 competitive wholesale market several opportunities to meet the need for a
3 new generation resource in Yuma. I also discuss the Company's RFP
4 process further below.

5 c. APS's RFP resulted in 25 proposals from the competitive wholesale
6 market, including both long-term PPAs and asset purchase proposals from
7 third party developers. Based on both the quantity and quality of the
8 proposals received, it is apparent that the RFP and competitive
9 procurement process provided APS with an adequate basis for evaluating
10 the economics of the market alternatives proposed for meeting the Yuma
11 resource requirements. The Company's analysis clearly demonstrated
12 that an asset purchase from a third party developer was the most
13 economic of the RFP proposals received.

14 d. APS's resource plan balances its future resource needs against load
15 forecasts. The plan for the Yuma load pocket shows that there is a need
16 for incremental *internal* resources beginning in 2008. That need is
17 consistent with APS's request in this proceeding.

18 e. APS performed a full life-cycle cost analysis on the responses it received
19 to the RFP. That analysis demonstrated that there was a clear and
20 substantial economic benefit to customers of asset ownership (self-build)
21 as compared to the long-term PPAs proposed in response to the RFP.

22 **Q. ARE THERE ANY OTHER REGULATORY CONSIDERATIONS**
23 **RELEVANT TO THIS RESOURCE DECISION?**

24 **A.** Yes. Paragraph 76 of the Settlement Agreement approved in the Settlement
25 Order confirms that APS continues to have an obligation to "prudently acquire
26 generating resources, including but not limited to seeking the [Paragraph 75]

1 authorization to self-build a generating resource or resources prior to 2015.”
2 Consistent with that requirement, APS must seek to obtain the most economic
3 resources for its customers and consider all reasonable alternatives for supplying
4 resources, including any self-build options that may be in the best interest of its
5 customers.

6 **III. APS’S NEED FOR NEW GENERATION IN THE YUMA LOAD POCKET**

7 **Q. WHAT ARE THE PRIMARY ISSUES THAT DRIVE THE ANALYSIS OF**
8 **YUMA’S NEEDS?**

9 **A.** First, the Yuma area is growing rapidly. Between 2000-2005, the Yuma peak
10 energy demand grew on average 6.3% per year. The average growth for the APS
11 system as a whole, by comparison, was 4.9% per year over that same period.
12 APS is forecasting peak load growth of approximately 20 MW per year over the
13 next several years, and the Yuma load is expected to grow by 70% between
14 2000-2010.

15 Second, transmission imports into Yuma are constrained during summer peak
16 demand periods. APS has therefore forecasted the need for new generation
17 located in Yuma or new long-distance transmission into Yuma. The generation
18 addition assumed in this filing satisfies the reliability need for several years, at
19 which point both new transmission and additional generation will be considered.

20
21 APS’s needs assessment included an analysis of the reliability of the electrical
22 system and the probability of not being able to meet the projected need. The
23 Company conducted a Loss of Load Probability (“LOLP”) analysis, a standard
24 industry reliability assessment approach, to assess the system reliability and
25 described more fully below.
26

1 Q. **WHAT DID APS'S NEEDS ASSESSMENT DETERMINE?**

2 A. To serve the load growth in Yuma and maintain adequate reliability of service,
3 the Company's analysis showed that additional generation resources are needed
4 in Yuma by 2008. Because the need is specific to summer capacity, Yuma
5 requires peaking resources rather than intermediate or base load resources.

6 IV. **EFFORT TO SECURE RESOURCES FROM THE MARKET**

7 A. *APS's RFP Process and the Yuma RFP*

8 Q. **PLEASE PROVIDE A BRIEF OVERVIEW OF APS'S RECENT RFPs.**

9 A. In May of 2005, APS issued two RFPs. The 2005 Renewable RFP sought at
10 least 100 MW of renewable generation for deliveries beginning as early as 2006,
11 and the 2005 Reliability RFP sought at least 1000 MW of additional long-term
12 energy resources for delivery beginning in 2007. Through these efforts, APS
13 was able to secure approximately 1,300 MW of resources to meet its customers'
14 needs through PPAs. For each of these two RFPs, APS found that the
15 competitive market was able to provide generation that will help APS meet its
16 customers' energy needs. In the case of the 2005 Reliability RFP, the capacity
17 also was available at prices below the Company's cost for new construction.

18
19 Q. **WHY DIDN'T APS PROCURE RESOURCES FOR YUMA THROUGH
ITS 2005 RELIABILITY OR RENEWABLES RFP?**

20 A. APS did not receive adequate proposals for generation resources inside the
21 Yuma load pocket in response to the 2005 Reliability or renewables RFP.
22 Because Yuma is transmission constrained, the area requires the construction of
23 *new* generation within the load pocket. Although APS received proposals for
24 new generation in Yuma in the 2005 Reliability RFP, the number was limited. In
25 order to obtain a more robust set of proposals offering the best possible
26

1 economics, APS issued the Yuma RFP and allowed bidders to propose new
2 generation at the Company's existing Yucca generation facility. With the Yuma
3 RFP, APS nearly doubled the number of qualified proposals from 13 to a total of
4 25 proposals, and eventually determined that new generation located at the
5 Yucca Power Plant was the most economic alternative.

6 **Q. PLEASE DESCRIBE THE YUMA RFP.**

7 **A.** APS issued the RFP seeking new generation resources from the market for
8 Yuma on September 15, 2005. The RFP sought generation of 100-200 MW to
9 be delivered within the Yuma load pocket, with delivery commencing between
10 June 1, 2006 and June 1, 2008. Because the need was for long-term resources to
11 serve APS customers within a constrained load pocket, APS solicited proposals
12 for power purchases for a period of at least 10 years with an option to extend, as
13 well as proposals for generation owned or constructed by others.

14
15 For reliability purposes (*i.e.*, to allow operating flexibility and reduce single
16 hazard risk), APS indicated that a project with multiple units was preferable to
17 one with a single large unit. APS also offered its Yucca Power Plant as a
18 possible expansion site, but indicated that the inclusion of Yucca was not to be
19 inferred as a preference for that location. APS further indicated that it would
20 take the lead on procuring the incremental gas transportation capacity necessary
21 for a gas-fired facility at Yucca. APS also initiated interconnection requests at
22 Yucca that would be made available to a winning bidder if the Yucca site was
23 selected. APS took the lead on these infrastructure issues at Yucca to reduce
24 unnecessary cost or confusion among multiple bidders who might be interested
25 in building at Yucca. APS shared this information with all interested bidders to
26

1 ensure fair access to the information and avoid any preferential treatment of the
2 Yucca location.

3 **Q. DID YOU ADVERTISE THE YUMA RFP?**

4 A. Yes. The Yuma RFP was widely publicized. The Company sent email
5 notifications regarding the release of the Yuma RFP to more than 75 individuals
6 or entities that it believed would be interested in the solicitation. APS also
7 maintained a page on its RFP web site for the Yuma RFP.

8
9 **Q. WHAT ARE THE KEY DATES FOR THE YUMA RFP PROCESS?**

10 A. The schedule for the Yuma RFP was as follows:

ACTIVITY	DATE
Issue Yuma RFP	September 19, 2005
Bidders' Teleconference	September 21, 2005
Site Tour of Yucca Power Plant	September 27, 2005
Responses Due	October 14, 2005
Short List Notification	October 28, 2005
Short List Interviews	Week of November 7, 2005
Short List Refreshed Offers	November 30, 2005
Final Entity Selected	December 20, 2005
Internal Analysis and Negotiations	January through June, 2006
ACC Application Filed	July 13, 2006

23
24 Representatives from 21 entities participated in the Bidders' Teleconference and
25 six entities attended the Yucca site tour.
26

1 *B. Screening of Proposals Received*

2 **Q. WHAT WAS THE RESPONSE TO THE YUMA RFP?**

3 A. APS received 25 proposals from 11 different parties utilizing multiple
4 technologies. The responses included 17 proposed PPAs and seven proposed
5 asset sales, totaling approximately 2,800 MW.

6 **Q. DID APS CONDUCT AN INITIAL SCREENING OF THE PROPOSALS**
7 **IT RECEIVED?**

8 A. Yes. Evaluation criteria included reliability and price.

9 **Q. WHAT FACTORS DID APS CONSIDER IN EVALUATING**
10 **RELIABILITY?**

11 A. For the reliability portion of the screening, APS considered the technology
12 proposed and the location of the project, and determined the LOLP. The LOLP
13 approach calculates the probability of not being able to adequately serve the
14 customer load and considers generator size, equipment effective forced outage
15 rate ("EFOR") projections for all units located inside the Yuma load pocket
16 (both APS-owned and third party owned), transmission import capability into
17 the load pocket, and the Yuma customer hourly load profile. The reliability
18 standard used for Yuma is based on the probability of not meeting customer load
19 for no more than one day in ten years.

20 **Q. HOW DID APS EVALUATE PRICE?**

21 A. For the initial screening, projects that met the reliability requirements were taken
22 through an economic evaluation that determined the long-term levelized busbar
23 cost for each proposal. The busbar analysis calculated the revenue requirement
24 of the delivered energy from the project, considering all fixed and variable costs,
25 divided by the assumed energy output of the plant. The busbar costs were
26

1 levelized to get one single annual cost number for each project to facilitate a
2 reasonable comparison.

3 **Q. WHAT WERE THE RESULTS OF THE INITIAL SCREENING?**

4 A. Because the load growth in Yuma requires incremental resources deliverable
5 within the load pocket, only those proposals that brought additional capacity
6 within the load pocket were selected in the initial screening. The levelized
7 busbar analysis was then used to rank the selected proposals with consideration
8 being given to alternative technologies. As a result, 12 proposals from five
9 entities were chosen for further evaluation. Four of those proposals were for
10 facility acquisitions, while eight of the proposals were for PPAs. Multiple
11 technologies were retained in order to further evaluate their merits.

12 **Q. HOW DID APS PROCEED AFTER THE INITIAL SCREENING?**

13 A. APS met with all of the companies that remained under consideration after the
14 initial screening to discuss their proposals further. APS sought to clarify any
15 differences or uncertainties in the proposals submitted. After working through
16 any issues with the bidders' proposals the Company allowed the bidders to
17 refresh the 12 proposals. APS then evaluated all of the refreshed proposals
18 based on economics, fuel supply, permitting, technology, and operating and
19 maintenance issues. During this stage of review, APS evaluated the economics
20 of each proposal based upon the net present value revenue requirements.

21 C. *RFP Results*

22 **Q. DESCRIBE THE RESULTS OF THE DISCUSSIONS WITH THE**
23 **BIDDERS WHO SUBMITTED THE 12 PROPOSALS.**

24 A. In analyzing both PPA and asset purchase proposals, the evaluation consistently
25 demonstrated that an asset purchase from a third party developer with APS
26

1 ownership and operation of the facility was the most economic option. Because
2 the proposed plant was needed inside the constrained load center and the output
3 would be dedicated to serving APS load, PPA proposals generally required long
4 term commitments (e.g., 20 years) that substantially recovered all of the
5 developer's investment, or included shorter term PPAs (e.g., as short as 5 years)
6 with required unit purchase at the end of the term. The PPA proposals submitted
7 in response to the Yuma RFP typically would have cost the Company and its
8 customers approximately \$20-\$30 million more than asset purchase proposals
9 based on the 30-year net present value revenue requirement.

10 **Q. PLEASE DESCRIBE THE OUTCOME OF THE COMPANY'S**
11 **SCREENING OF THE FINAL LIST OF PROPOSALS.**

12 A. Based on the Company's screening of the final list of 12 proposals, which
13 included six PPAs, APS pursued further negotiations with a single entity to build
14 two GE LM 6000 units with a total capacity of 96 MW to be located at the
15 Company's existing Yucca Power Plant. This proposal represented the most
16 economic of all of the proposals received in response to the Yuma RFP.

17 **Q. IF APS RECEIVES COMMISSION AUTHORIZATION TO MOVE**
18 **FORWARD WITH THE REQUESTED ACQUISITION OF A**
19 **GENERATING FACILITY, HOW WILL APS PROCEED TO**
DETERMINE WHICH "SELF BUILD" APPROACH TO TAKE?

20 A. Assuming the Commission grants authorization to self-build, APS will request
21 final, firm pricing for both of the available options. A comparison of both
22 options will be performed to determine which option is the most economic and
23 best meets of the needs of APS's Yuma customers. APS will then make a final
24 decision and execute binding agreements.

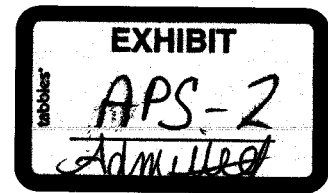
1 V. CONCLUSION

2 Q. **DO YOU HAVE ANY CONCLUDING REMARKS?**

3 A. Yes. APS customers in Yuma need additional generating capacity and APS may
4 not proceed to acquire a new generating facility, which has been shown to be the
5 most economic option, without the Commission's authorization. APS's
6 Application for Authorization to Acquire Power Plant clearly is supported by the
7 results of the Yuma RFP and the analyses that the Company performed. The
8 Yuma RFP is one more example of where APS has repeatedly and successfully
9 engaged the wholesale power market to procure generation resources. APS
10 contracted for approximately 1300 MW of long-term PPAs in the last year, and
11 is now asking for permission to acquire 96 MW of new generation after fair
12 consideration of a robust set of proposals from a number of generation
13 developers. APS must obtain final pricing and schedule commitments from the
14 third party developer and vendors in order to determine the most economic
15 option. APS is unable to do so until it has received Commission authorization
16 and, for that reason, APS is seeking Commission authorization to proceed with
17 either option. APS took that approach because it offered the most benefit for
18 customers, and was consistent with the Company's obligation under the
19 Settlement Agreement.

20 Q. **DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

21 A. Yes, it does.
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REBUTTAL TESTIMONY OF PATRICK DINKEL
On Behalf of Arizona Public Service Company
Docket No. E-01345A-06-0464

December 22, 2006

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1 **REBUTTAL TESTIMONY OF PATRICK DINKEL**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket No. E-01345A-06-0464)**

4 I. INTRODUCTION

5 Q. **PLEASE STATE YOUR NAME AND POSITION WITH APS.**

6 A. My name is Patrick Dinkel. I am the Director of Corporate Planning and
7 Resource Acquisition for Arizona Public Service Company ("APS" or
8 "Company").

9 Q. **DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

10 A. Yes.

11 Q. **WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS**
12 **PROCEEDING?**

13 A. I will respond to the issues and recommendations raised by the intervenors
14 relating to the process followed by APS in conducting its request for proposals
15 for resources to meet the Yuma need ("Yuma RFP").
16

17 Q. **ARE ANY OTHERS PROVIDING REBUTTAL TESTIMONY ON**
18 **BEHALF OF THE COMPANY?**

19 A. Yes. Don Robinson, Vice President of Planning for APS, is providing rebuttal
20 testimony on the issues raised by the intervenors relating to the Settlement
21 Agreement approved by the Commission in Decision No. 67744 (April 7, 2005).

22 II. SUMMARY OF REBUTTAL TESTIMONY

23 Q. **PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

24 A. APS conducted a fair and unbiased RFP seeking resources to meet a growing
25 need within the Yuma load pocket. It is undisputed that (i) meeting the Yuma
26 need requires a new peaking generation resource within the load pocket; (ii) the

1 RFP was well publicized; (iii) the asset ownership alternatives were significantly
2 more economic for customers than the purchase power agreement proposals
3 submitted in response to the Yuma RFP; and (iv) as modified by Decision No.
4 67744, APS was required to submit an application to the Commission whether it
5 sought to direct build a new resource through contracts with vendors or to
6 acquire a resource pursuant to a bid from a developer. Commission Staff
7 recommends approval of the Company's application. The only dispute with the
8 Merchant Intervenors appears to be whether APS should be obligated to
9 purchase a resource from a developer, regardless of the additional cost to the
10 Company or customers. The Settlement Agreement does not support the
11 Merchant Intervenors' position, and the APS Application meets the clear
12 requirements of Paragraphs 75 and 76 of the Settlement Agreement.

13 **III. THE YUMA RFP PROCESS WAS FAIR AND UNBIASED AND THE**
14 **COMPANY'S APPLICATION MET THE REQUIREMENTS SET FORTH IN**
15 **THE SETTLEMENT AGREEMENT**

16 **Q. STAFF HAS RECOMMENDED APPROVAL OF THE COMPANY'S**
17 **APPLICATION. PLEASE PROVIDE YOUR COMMENTS ON THE**
18 **STAFF REPORT.**

19 **A.** As APS has indicated consistently in its pleadings in this docket, the Company
20 was confident that Staff was in the best position to provide an independent
21 evaluation of the Company's Application. Staff also is the appropriate entity to
22 review the Company's Application and its compliance with the terms of the
23 Settlement Agreement. Staff witness Matt Rowell indicates that the APS
24 Application and supporting information satisfied each of the elements of
25 Paragraph 75 of the Settlement Agreement. Mr. Rowell clearly states his
26 recommendation that the Commission approve the Application.

1 Q. YOU INDICATE THAT MR. ROWELL FOUND THAT APS SATISFIED
2 THE REQUIREMENTS OF THE SETTLEMENT AGREEMENT.
3 PLEASE SUMMARIZE THE KEY POINTS THAT YOU TOOK FROM
4 THE STAFF REPORT.

5 A. In his Staff Report, Mr. Rowell discusses each of the five elements set forth in
6 paragraph 75 of the Settlement Agreement that APS must address in any request
7 for authorization to self-build. Mr. Rowell concludes "Staff believes there is
8 enough information contained within the application and the responses to Staff's
9 data requests to make an informed recommendation to the Commission" and
10 that "APS is making a good faith effort to comply with the requirements of
11 Decision No. 67744." [Staff Report at 1] Mr. Rowell also notes that the "RFP
12 was well publicized," that the reliability screen employed by APS "was
13 straightforward and . . . applied consistently to each of the proposals," and that
14 "the bids were treated fairly and equitably [because] APS used a consistent
15 methodology to calculate the NPV and busbar cost of each bid." [Staff Report at
16 4-5] Based on his review, Mr. Rowell concludes that "APS' request is
17 reasonable" and he "recommends that the Commission issue an order
18 authorizing APS to pursue either" of the two self-build options included in the
19 Company's Application. [Staff Report at 5]

20 Q. DID MR. ROWELL TAKE ANY ISSUE WITH THE COMPANY'S
21 STATEMENT THAT THE ECONOMIC ANALYSIS CLEARLY
22 SUPPORTS THE SELF-BUILD ALTERNATIVES?

23 A. No. Mr. Rowell noted that the purchase power agreements ("PPAs") were
24 substantially more expensive.

25 Q. DID MR. ROWELL MAKE ANY STATEMENTS REGARDING THE
26 COMPANY'S USE OF A DIRECT BUILD ALTERNATIVE?

A. Yes. Mr. Rowell indicated strong support for inclusion of the direct build
alternative:

1 Allowing APS the option to build the plants themselves without the
2 developer's involvement will provide APS with leverage in its
3 negotiations with the developer that may result in the developer
4 reducing its price. Without the self build option available, APS
5 would have little leverage in negotiations with a developer and a
6 higher than necessary price could be imposed on APS and eventually
7 its customers.

8 [Staff Report at 5]

9 **Q. MR. ROWELL SUGGESTS THAT APS PROVIDE IN FUTURE RATE**
10 **CASES "THE SAME INFORMATION PROVIDED BY APS IN THIS**
11 **CASE TO JUSTIFY ITS SELECTION OF THE SELF BUILD OPTION**
12 **..." [STAFF REPORT AT 6]. DOES APS OBJECT TO THIS**
13 **RECOMMENDATION?**

14 **A. No. However, APS is concerned with the implication that such non-final, non-**
15 **firm cost information should serve as some sort of cost "ceiling" on the value of**
16 **this new facility for future ratemaking purposes.**

17 **Q. DO YOU BELIEVE THAT THE COST ESTIMATES PROVIDED BY**
18 **THE COMPANY IN SUPPORT OF THIS APPLICATION SHOULD**
19 **SERVE AS A CEILING FOR FUTURE RATE RECOVERY?**

20 **A. No. Given the dynamics of the market, it would be inappropriate to tie future**
21 **rate recovery to the estimated numbers submitted by the bidder in response to**
22 **the RFP or prepared by APS for the direct build option. The estimates reflected**
23 **in the information provided in support of the Application are six months old, and**
24 **the cost for commodities such as concrete, steel and copper, as well as for major**
25 **equipment move on a regular basis. APS is unable to obtain firm offers until it**
26 **gets authorization from the Commission to proceed. In addition, while the**
 proposed facility is not a large plant by general utility terms, it is still a sizable
 investment, and it would be inappropriate to predispose APS to a potential write-
 off, but then expect it to attract the necessary debt and equity financing needed
 to fund the acquisition. Finally, establishing the cost estimates as a ceiling

1 implies establishing cost estimates as a per se test of prudence, which is contrary
2 to Mr. Rowell's stated intent and the Company's request.

3 **Q. DOES MR. CLEMENTS, TESTIFYING ON BEHALF OF THE**
4 **MERCHANTS, AGREE WITH MR. ROWELL'S CONCLUSIONS?**

5 A. Mr. Clements agrees with Mr. Rowell that the APS Application satisfies
6 Paragraphs 75(a) and 75(b) of the Settlement Agreement, which deal with the
7 Company's resource need and our efforts to secure resources from the
8 competitive wholesale market. He takes a different position on the remaining
9 three subsections of Paragraph 75, however.

10 **Q. WHAT DOES MR. CLEMENTS ASSERT REGARDING PARAGRAPH**
11 **75(C), WHICH STATES THAT APS MUST ADDRESS WHY THE**
12 **COMPANY'S EFFORTS TO SECURE RESOURCES HAVE BEEN**
UNSUCCESSFUL?

13 A. Mr. Clements asserts that because the Company received numerous proposals in
14 response to the Yuma RFP, the RFP was "successful" and the Company cannot
15 satisfy the requirement under Paragraph 75(c).

16 **Q. DO YOU AGREE WITH MR. CLEMENTS?**

17 A. No. The purpose behind Paragraph 75(c) is not satisfied merely by the number
18 of responses to the RFP, but whether the Company was successful in securing
19 from the competitive market "adequate and reasonably-priced long-term
20 resources" to meet the Company's needs as stated in 75(b). Mr. Rowell clearly
21 recognized this point and stated so quite concisely. If Mr. Clements' test were
22 applied literally, the Company would never be able to request authorization to
23 direct build if it received more than one response to an RFP, regardless of the
24 cost to the Company and customers. That is hardly a robust response, and the
25 result could be very costly to APS customers.
26

1 Q. DO YOU AGREE WITH MR. CLEMENTS THAT THE COMPANY DID
2 NOT SATISFY THE REQUIREMENTS OF PARAGRAPH 75(D)?

3 A. No. Mr. Clements asserts that the Company has not satisfied Paragraph 75(d)
4 because the resource planning workshops contemplated in Paragraph 79 of the
5 Settlement Agreement have not yet concluded. Taken literally, Mr. Clements'
6 apparently would preclude the Company from submitting an application for self
7 build (which includes both direct build or an asset purchase from a developer),
8 even if every response to an RFP involved what the Settlement Agreement
9 defines as "self-build," until after the workshops contemplated by Paragraph 79
10 have been completed and the Commission has issued an order or rules in
11 response. Such an interpretation would serve certain bidders well, but would put
12 an unreasonable risk on the Company and its customers both in terms of
13 economics and reliability.

14 Q. MR. CLEMENTS ASSERTS THAT ALTHOUGH APS PERFORMED A
15 LIFE CYCLE COST ANALYSIS, IT HAS FAILED TO SATISFY
16 PARAGRAPH 75(E). DO YOU AGREE?

17 A. No. Paragraph 75(e) says that the Company must show the life-cycle cost of the
18 self-build option in comparison to suitable alternatives from the competitive
19 market. It is important to note first that Mr. Clements does not question or
20 challenge the method used by the Company to conduct its life-cycle cost
21 analysis of RFP proposals and the direct build alternative. In addition, he also
22 does not question the specific comparison of the RFP PPA proposals against the
23 RFP asset purchase proposals. That comparison clearly shows that the RFP asset
24 purchase proposal should be selected over the PPA proposals based upon the
25 significant difference in cost. Mr. Clements' assertion is that the analysis should
26 be rejected as "meaningless" because the direct build alternative should be
treated as a "bid" by an APS "affiliate," and that the direct build alternative did

1 not meet all of the requirements for a "qualifying bid." He also argues that if the
2 Company is "allowed" to compare bids submitted in response to an RFP to a
3 direct build cost estimate, the market will be less likely to participate in APS
4 RFPs and that bidders could add a risk premium.

5 Mr. Clements' arguments seek to benefit merchant generators at the expense of
6 APS customers. Mr. Clements ignores the Company's *obligation* to secure
7 economic resources for customers and the value that having the right to seek
8 authorization to direct build brings to encouraging the market to submit its best
9 proposals. That obligation is reiterated in Paragraph 76 of the Settlement
10 Agreement.

11
12 Mr. Clements also tries to disqualify the direct build alternative by
13 characterizing it as an affiliate bid. The direct build alternative is not an affiliate
14 bid, but is instead an independent alternative provided to ensure the appropriate
15 value for customers. Mr. Clements ignores that the Company previously
16 indicated in its Reliability RFP issued in May 2005 that bids would be compared
17 to a direct build cost alternative and that this communication did not stop the
18 market from responding to that RFP. Indeed, the market responded to the
19 Reliability RFP with proposals sufficient for the Company to acquire 1,160 MW
20 of capacity from the market. Finally, the Company has consistently used direct
21 build cost estimates in its resource planning and procurement, as shown in
22 numerous Commission proceedings, including the recent Sundance power plant
23 acquisition proceeding.

24 **Q. HOW DO YOU RESPOND SPECIFICALLY TO MR. CLEMENTS'**
25 **ASSERTION THAT THE DIRECT BUILD ALTERNATIVE WAS NOT A**
26 **"QUALIFYING BID"?**

1 A. I agree with Mr. Clements that the direct build alternative was not a "qualifying
2 bid," and it never was intended to be. Instead, as the Company indicated in the
3 RFP, the proposals submitted in response to the Yuma RFP would be evaluated
4 "against the internally estimated cost of new-build alternatives at the Yucca site
5 in determining the appropriate purchases and/or acquisitions for APS' future
6 reliability and energy needs." [Yuma RFP, Exhibit B to the Application, pages 4,
7 12]

8 Mr. Clements also states that the direct build is not a firm, binding proposal,
9 while implying that the RFP bids are themselves binding. He appears to assume
10 that the proposals submitted to APS in October 2005 in response to the Yuma
11 RFP were the bidders' final fixed price proposals, and that those proposals
12 would be binding until January 2007. In fact, bidders submitted initial bids in
13 October of 2005, refreshed them in November of 2005, refreshed them again in
14 June of 2006, and will offer final and firm offers when the Company receives
15 authorization to proceed. No bidder responding to the Yuma RFP would have
16 been willing to keep its price firm from October 2005 to January 2007. The
17 direct build cost estimates were similarly updated since October 2005. In
18 addition, we clearly communicated to the bidders that APS could not execute
19 any definitive agreement to acquire generation until the Company received
20 authorization to do so from the Commission. Given the fact that the bids are not
21 firm and that APS does not have a definitive, signed agreement, the RFP
22 proposals simply do not provide the risk mitigation benefits that Mr. Clements
23 claims.

24
25 It is true, as Mr. Clements states, that the direct build alternative prepared by
26 APS was not independently submitted prior to October 2005, when the RFP

1 responses were submitted. The direct build alternative, however, was
2 constructed primarily from third party quotes and, contrary to Mr. Clements'
3 assertion, APS has not relied upon RFP bidder information to construct the
4 direct build alternative.

5 **Q. MR. CLEMENTS RECOMMENDS ON BEHALF OF THE MERCHANTS**
6 **THAT APS SHOULD BE ORDERED TO EXECUTE A CONTRACT ON**
7 **AN EXPEDITED BASIS WITH THE THIRD PARTY BIDDER. DO YOU**
8 **HAVE ANY RESPONSE TO THAT PROPOSAL?**

9 **A.** I disagree strongly with Mr. Clements' recommendation. There is no basis in the
10 Settlement Agreement for his conclusion, and his approach would put the
11 Company at a severe negotiating disadvantage, holding the Company hostage to
12 whatever terms the third-party developer wanted to impose. That result would
13 impose an unreasonable risk on APS and, ultimately, its customers, just as Mr.
14 Rowell acknowledges in the Staff Report.

15 **Q. MR. BALTES TESTIFIES ON BEHALF OF DEAA THAT THE**
16 **COMMISSION SHOULD IMPOSE ON APS AN ABSOLUTE**
17 **PROHIBITION FROM SELF-BUILDING GENERATION THROUGH**
18 **2015. DO YOU HAVE ANY RESPONSE TO HIS TESTIMONY?**

19 **A.** Yes. In his testimony, Mr. Baltes does not raise or discuss any specific issues
20 with respect to the Application filed by APS in this docket. Instead he simply
21 proposes that the Commission arbitrarily impose on APS an absolute prohibition
22 on the self-building of additional resources, despite the terms of the Settlement
23 Agreement or Decision No. 67744, and regardless of the impact on customers.
24 That position is particularly surprising in light of the fact that DEAA's members
25 are not among those parties that were intended to be benefited by paragraph 75
26 of the Settlement Agreement. Thus, DEAA's only arguable interest in this matter
is whether its members were given an opportunity to participate in the RFP and

1 whether their bids were fairly and consistently evaluated. DEAA has not
2 asserted any concerns with respect to either of those issues.

3 **Q. WHAT DO YOU MEAN BY YOUR STATEMENT THAT DEAA'S**
4 **MEMBERS ARE NOT AMONG THOSE PARTIES INTENDED TO BE**
5 **BENEFITED BY THE LIMITATIONS ON SELF-BUILD?**

6 **A.** Paragraph 74 of the Settlement Agreement specifically excludes from the
7 limitations imposed on the Company's ability to self-build generation
8 "distributed generation of less than 50 MW per location [and] renewable
9 resources."

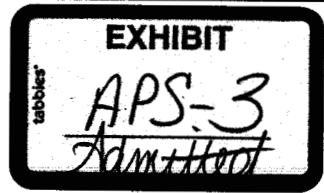
10 **IV. CONCLUSION**

11 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

12 **A.** The Company's request for authorization to acquire a generating resource is
13 fully supported by the Application and the documents submitted. It is clear that
14 the Company needs a new generating resource in Yuma and the Company's
15 Application shows that self-build, through either direct contracts with vendors or
16 an asset purchase through a contract with a developer, is the most economic
17 result to meet that need. The suggestions by the Merchants that the Company
18 failed to satisfy the requirements of Paragraph 75 of the Settlement Agreement
19 are based in strained arguments and should be rejected. APS believes the
20 Commission is justified in providing the Company authorization to proceed with
21 one of the self-build options, as requested in the Application.

22 **Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

23 **A.** Yes, it does.
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REBUTTAL TESTIMONY OF DONALD G. ROBINSON
On Behalf of Arizona Public Service Company
Docket No. E-01345A-06-0464

December 22, 2006

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1 **REBUTTAL TESTIMONY OF DONALD G. ROBINSON**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket No. E-01345A-06-0464)**

4 I. INTRODUCTION

5 **Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

6 A. My name is Donald G. Robinson. I am Vice President of Planning for Arizona
7 Public Service Company ("APS" or "Company"). I have responsibility for
8 Corporate Planning, Resource Acquisition, Resource Planning, Budgets,
9 Forecasts, Energy Risk Management and New Business Ventures. My business
10 address is 400 North Fifth Street, Phoenix, Arizona 85004.

11 **Q. ARE YOUR EDUCATIONAL, BUSINESS AND PROFESSIONAL**
12 **QUALIFICATIONS SET FORTH IN APPENDIX A TO YOUR DIRECT**
13 **TESTIMONY?**

14 A. Yes.

15 **Q. DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

16 A. No.

17 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

18 A. I will address arguments raised by intervenors that the present APS application
19 is somehow violative of the 2004 APS Settlement Agreement ("Settlement"), as
20 approved by Decision No. 67744 (April 7, 2005).
21

22 II. SUMMARY OF REBUTTAL TESTIMONY

23 **Q. WOULD YOU PLEASE SUMMARIZE YOUR REBUTTAL**
24 **TESTIMONY?**

25 A. Yes. The APS Application in this matter is fully in compliance with both the
26 letter and intent of Decision No. 67744. Indeed, if the Company had not

1 submitted such an application under the facts known to it, it would not be acting
2 consistent with the continuing obligations of APS related to supplying resources
3 in a prudent manner, as confirmed in Paragraph 76 of the Settlement, as
4 incorporated into Decision No. 67744. Moreover, this Paragraph was not
5 intended to conflict with, and in fact is not in conflict with, any other
6 requirements set forth in Paragraphs 74 and 75.

7 **III. THE APS APPLICATION IN THIS MATTER IS FULLY CONSISTENT**
8 **WITH THE PROVISIONS OF DECISION NO. 67744**

9 **Q. DID YOU PERSONALLY PARTICIPATE IN THE SETTLEMENT**
10 **DISCUSSIONS THAT RESULTED IN THE 2004 APS SETTLEMENT, AS**
11 **APPROVED IN DECISION NO. 67744?**

12 **A.** Yes. In fact, I personally participated in the negotiation of Article IX of that
13 Settlement. Article IX deals with competitive resource acquisition in general and
14 the limited "self-build" moratorium on the construction or acquisition by APS of
15 new power plants in particular.

16 **Q. WHY DO YOU REFER TO THE MORATORIUM AS "LIMITED"?**

17 **A.** For several reasons – all of which are an integral part of Paragraphs 74-75 of the
18 Settlement. First, the limitation only exists for plant placed into service for APS
19 prior to January 1, 2015. Second, the limitation does not apply at all to
20 renewable facilities, distributed generation less than fifty megawatts per
21 location, unit uprates, or temporary generation needed for system reliability.
22 Finally, the Settlement clearly provides that the Commission can authorize
23 further exceptions to the moratorium on a case by case basis.

24 **Q. DO THE SETTLEMENT AND DECISION NO. 67744 PROVIDE FOR A**
25 **PROCESS BY WHICH APS CAN SEEK AUTHORITY TO BUILD OR**
26 **BUY A POWER PLANT THAT WOULD OTHERWISE BE SUBJECT**
TO THE LIMITED SELF-BUILD MORATORIUM?

1 A. Yes. Paragraph 75 sets forth that procedure as well as the specific information
2 required to be submitted by APS. As is noted in a point-by-point analysis of this
3 Paragraph in the Staff Report in this matter, APS has fulfilled each of the
4 requirements of Paragraph 75.

5 I would also note that even if Paragraph 75 did not exist, Paragraph 76 of the
6 Settlement, as approved by Decision No. 67744 confirms APS' existing
7 obligation to seek new resources in the most prudent fashion for its customers.
8 Paragraph 76 goes on to specifically include the obligation to seek Commission
9 approval for self-built resources, which is precisely what we have done in the
10 current application before the Commission.

11
12 **Q. WAS APS' ABILITY TO SEEK THE MOST COST-EFFECTIVE**
13 **GENERATION UNDERSTOOD BY THE PARTIES AT THE TIME THE**
14 **LIMITED SELF-BUILD MORATORIUM WAS APPROVED BY**
15 **DECISION NO. 67744?**

16 A. Yes. Commission Utilities Director Ernest Johnson stated to the Commission
17 during its deliberations on this portion of the Settlement:

18 We [Staff] think the utility ought to be able to acquire
19 whatever resource, whatever generating resource it believes it needs
20 to provision service on behalf of its customers, in a manner,
21 ultimately, we think is reasonable and prudent...

22 Special Open Meeting Transcript of March 28, 2005 at Vol. II, p. 157. He later
23 went on to add:

24 We [Staff] believe that APS should have and should retain—
25 we took this position in our discussions with the parties. We said
26 APS should have ultimate flexibility in terms of its approach to
acquiring the needed generation resources on behalf of its customers.
We took that position because we did not want to create leverage on
behalf of any particular entity which could impact the ultimate price
that is borne by consumers.

Id. at p. 173-174.

RUCO Chief Counsel Scott Wakefield had previously told the Commission:

1 A third reason that RUCO supports this proposed settlement
2 is that it provides the parties with greater certainty about the
3 regulatory framework in which electricity will be provided.
4 *Specifically, the settlement confirms that APS is permitted to acquire
5 additional generation assets rather than relying solely on the
6 wholesale market to meet future energy needs.*

7 Hearing Transcript Vol. I, p. 81 [emphasis supplied].

8
9
10
11 **Q. DO YOU BELIEVE THE COMMISSION HAD A SIMILAR
12 UNDERSTANDING AT THE TIME?**

13
14 **A.** Yes. Chairman Hatch-Miller stated:

15 And it is not competition for competition's sake, but competition in a
16 healthy manner to be able to provide for the needs of those in the
17 state that rely upon electricity to be able to live and work here.

18 Special Open Meeting of March 28, 2005 Transcript Vol. II, p. 149.

19 Commissioner Gleason then added:

20 If it becomes uneconomical for APS to purchase power from
21 the merchants, in other words, if the merchants decide to hold APS
22 up at a high price, you can still come back to us [the Commission]
23 and say, we have a chance to buy units and we can buy it, as you did
24 with Sundance.

25 *Id.* at 151. While much of the discussion focused on the Commission's
26 *expansion* of the limited self-build moratorium to include the acquisition of
interests in power plants constructed by another entity (which was the
subject of a proposed amendment to the Settlement), it is certainly
reasonable to assume that these principles would be equally relevant to new
resources built by APS or for APS.

IV. CONCLUSION

Q. DO YOU HAVE ANY CONCLUDING REMARKS?

A. Yes. The goal here is, or ought to be, getting the best economic solution for our
customers while meeting a critical need for additional resources to serve the
Yuma area. The Company believes it has presented the necessary information

1 for this Commission to decide this important issue. The Staff has fully analyzed
2 the application and concurs that the Company's request is both consistent with
3 the requirements of Decision No. 67744 and in the best interests of APS
4 customers. Therefore, the Company asks the Commission to approve the
5 application in an expeditious manner such that APS can proceed to add this
6 necessary resource.

7 **Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY IN THIS**
8 **PROCEEDING?**

9 **A. Yes.**
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Appendix A
Statement of Qualifications
Donald G. Robinson

Donald G. Robinson is Vice President of Planning for Arizona Public Service Company ("Company"). Mr. Robinson is responsible for the Company's corporate planning, resource acquisition, resource planning, budgets, forecasts, energy risk management and new business ventures.

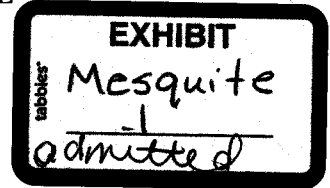
Mr. Robinson was previously Vice President of Finance and Planning for Arizona Public Service Company. In this position, Mr. Robinson was responsible for the Company's financial planning, corporate planning, budgeting, forecasting, accounting, risk management, tax services and supply chain management.

Before the position above, Mr. Robinson was Vice President of Regulation and Planning for Arizona Public Service Company. In this position, Mr. Robinson was responsible for the Company's regulatory policies and activities before the Arizona Corporation Commission and the Federal Energy Regulatory Commission, as well as corporate planning.

Prior to the promotion above, Mr. Robinson was Director of Accounting, Regulation and Planning for Arizona Public Service Company. Mr. Robinson had responsibility for the Company's accounting, planning and regulatory policies and activities.

Mr. Robinson joined the Company in 1978 and held a number of supervisory positions in the accounting department. In 1981, he was named Manager of Regulatory Affairs and in 1998, Manager of Rates and Regulation. Mr. Robinson was a principal in the consulting firm Micon from 1992-1996. Mr. Robinson has a Bachelor of Science degree in Accounting.

MESQUITE POWER, L.L.C., SOUTHWESTERN POWER GROUP II, L.L.C. AND
BOWIE POWER STATION, L.L.C.'S ("MESQUITE/SWPG/BOWIE")
SECOND SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY
DOCKET NO. E-01345A-06-0464



- LVR 2-10
- (A) Please describe the types of risks (e.g. construction delays, excessive heat rates, excessive forced outage rates, etc.) that APS determined would be associated with the "acquisition," "direct build" and purchased power agreement ("PPA") options, respectively.
- (B) As to each such type of risk, please describe the manner in which, and the extent (including weighting) to which, APS included that risk in its review, analysis and evaluation of the "acquisition," "direct build" and PPA options which appear on the aforementioned "Annual Revenue Requirement Analysis Results" sheet.
- (1) Please identify and describe the reason(s) for each instance in which a given risk was not considered in connection with a given option, and/or the weighting assigned to a given risk differed as between the various options considered
- (2) Please provide documentation of any actions taken by APS to mitigate the risks considered in connection with the "direct build" option.
- (C) When and how did APS compare and analyze the costs associated with the risks identified and described in LVR 2-10(A)?
- (D) With reference to the Tab labeled "Screening Analysis (October 2005) in the notebook entitled "APS 2005-2006 Yuma RFP Generation Evaluation," the list of eleven (11) analysis assumptions does not include a category for risk assessment and mitigation. Please explain why that category has not been included. Please explain why APS did not include risk assessment in the "Screen Analysis."

RESPONSE:

- (A) With respect to the risks associated with the ownership alternatives, once the plant was in service, APS did not deem there to be any real operational differences between the direct build alternative and the final proposal submitted by the remaining bidder, because the design specifications were equivalent, and APS would be operating the facility. Several non-operational risks, however, were considered to be materially different between the direct build and the final bidder proposal, thereby warranting further consideration. These risks were developer default risk, contracting risk, financing risk, and scheduling risk. With respect to PPA proposals, the primary concern was control over the unit during the PPA period, as well as rollover risk at the end of the PPA term, and default risk.

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(B) APS held qualitative discussions regarding the differences in risks for each of the alternatives, and chose not to force those discussions into any sort of numeric quantification. Although each of the risks associated with the RFP proposals and the direct build alternative was given consideration, none was determined to be material enough to modify the conclusions reached from the economic analysis.

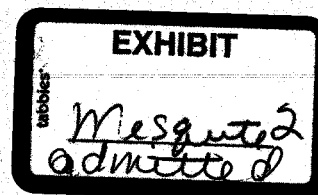
(1) See the response to LVR 2-10(B).

(2) See the response to LVR 2-10 (B). It has not been necessary or appropriate to take any actions to date to mitigate the identified risks, but APS had several verbal discussions with the single remaining bidder over the first half of 2006 regarding the development of viable terms by which APS could contract for the proposed generating assets. Topics discussed included scheduling risk, contractor default risk, and construction financing.

(C) See the response to LVR 2-10(B).

(D) See the response to LVR 2-10(B)

Developer Power
Proposal



Yucca

Units 5 & 6, LLC

Confidential & Proprietary Pricing & Proposed Terms Final Proposal – Submitted June 26, 2006

For more than a year Bidder's team consisting of TIC POWER Engineers, GE and DG Power has devoted substantial time, effort and expense addressing and responding to multiple scenarios, and made a concerted effort to minimize project costs. Bidder now submits this "Best and Final" pricing proposal.

Bidder's team believes that it is important to assure project financing closes before year-end 2006, to capture the market place advantage of firm equipment order placement at this historically "slow time" for vendors, and to avoid likely early 2007 price increases.

Three options are presented below. Bidder requires that APS execute a Term Sheet by July 11, 2006 for one of them. If APS is unable to accept any of these proposals, Bidder reserves the right to withdraw all three options. Term Sheets for each option accompany this proposal and are incorporated by reference. Bidder expects that APS will recommend the selected option to the ACC for approval based upon the competitive RFP and APS' comparison of that result with its estimated cost and risk of a pure "APS self build" project.

Option One – Build-Transfer – APS Direct Payment

The lowest cost alternative is to structure the contract as an Asset Purchase Agreement ("APA") in which APS agrees to purchase the Facility at completion for an agreed price, and for APS to make direct payments monthly commencing December 2006. A Cash Drawdown Schedule accompanies this proposal. For this option, Bidder has reduced its turnkey price (from June 15) by Bidder's avoided costs: (1) eliminating equity and debt providers' placement fees, legal and related transaction costs, and (2) interest during construction that otherwise would be paid to a third party lender. Developer has also reduced its fee.

In order to meet schedule, Bidder requires that the APA be executed by September 15, 2006 and approved by ACC no later than December 1, 2006. APS would provide the first monthly direct payment by December 15, 2006. A license agreement will suffice in lieu of a ground lease requiring ACC approval, and the air permit need not be final by year-end.

The APA price for this option is \$ [REDACTED] subject only to provisions of "Year-End Pricing Adjustment" section below.

Option Two – Build-Transfer – Third Party Construction Financing

This option is the same as Option One, except that Bidder will obtain third party construction financing. Bidder has ascertained that construction lenders would require that a definitive Site Lease be executed and approved by the ACC, and the air and related permits must be final before first draw on a construction loan.

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In order to meet schedule, Bidder requires that the APA be executed by September 8, 2006 and approved by ACC no later than December 1, 2006. Construction financing must close by December 15, 2006.

The APA price for this option is \$ [REDACTED] subject only to provisions of "Year-End Pricing Adjustment" section below. Developer has reduced its fee in order to reach this number.

Option Three – 20-year Power Purchase Agreement

Bidder also offers a 20-year PPA structured as a tolling agreement with O&M by APS and all tax benefits and burden flowing to APS, in accordance with the accompanying Term Sheet. In order to meet schedule, Bidder will require that the PPA and Site Lease be executed by September 8, 2006 and approved by ACC no later than December 1, 2006. In addition, the air permit and all other required permits would need to be obtained, and become final, by December 1, 2006. Construction financing must close by December 15, 2006.

Capacity Price: \$ [REDACTED]/kW-month, escalating at [REDACTED] beginning [REDACTED]

Purchase Option: APS to have option to purchase plant at end of initial 10-year term for [REDACTED]

Year-End Pricing Adjustment

The above pricing is firm thru December 15, 2006 except for potential adjustment on or before December 5, 2006 for any net change from late June 2006 pricing, for the following components (any increase not to exceed \$1.5 million in the aggregate): labor, plant equipment, fuel and bulk materials (including, but not limited to steel, cement power, and copper). Any proposed increase in pricing for these items shall be accompanied by a written explanation of the difference between the estimates prepared in late June 2006 with the new estimate. Bidder and APS shall negotiate any adjustments in pricing contained in these three options according to negotiated and agreed cost adjustments within the \$1.5 million band. In the event a proposed increase exceeds \$1.5 million, and the parties are unable to negotiate resolution of the treatment of that proposed increase, then APS shall have the right to terminate the APA or PPA, as the case may be, without penalty or liability, in its sole discretion.

Additional Terms & Conditions Applicable to All Options

1. No geotek or environmental problems; pricing based on bearing capacity of 3000 psf supporting spread footings; assume no ground water problems and minimal cut and fill. Costs of resolving any or all such problems to be an "add on" to scope, with commensurate adjustment to capacity price, to be negotiated.
2. APS will assign existing interconnection application rights held by M&T group to Bidder at no cost to Bidder. No electric interconnection costs are included in this pricing; APS to construct and pay costs of interconnection to Yucca 69kV switchyard from high side of transformers (2). No switchyard/substation costs are included herein. No allowance for electric transmission or distribution system reinforcements or upgrades is included in this proposal.

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3. APS will arrange for construction of natural gas pipeline to Site fence, at its expense. Bidder will complete interconnection, with no compression. Gas to be available for plant testing by 2/1/08, and any delay will extend COD day-by-day. No liquid fuel system is included in this pricing.
4. No separate admin bldg. If PPA option selected, APS to provide adequate additional space for admin bldg/trailer.
5. Pricing does not include separate water treatment system; APS to provide demin water, at APS' expense, with the following characteristics:

DESIGN BASIS

The design of the demineralized water system is based on the following:

Demineralized Water Output:

Second Pass RO Permeate:

Second Pass RO Recovery:

Second Pass RO Feed:

First Pass RO Permeate:

First Pass RO Recovery:

First Pass RO Feed:

UF Filtrate:

UF Raw Water Feed:

DEMINERALIZED WATER QUALITY

Based on the given water analysis, the projected demineralized water quality is:

Total Solids:

Specific Conductance:

Total SiO2:

Total Hardness:

pH

6. APS shall provide all necessary utility interconnects to Site fence.
7. Proposal assumes discharge water will connect to existing APS system.
8. Stormwater retention not included; assume connect to existing APS system.
9. Pricing assumes no county special use permit required; if required, Bidder will have responsibility for obtaining such permit, with APS' cooperation and support, at an additional cost of \$[REDACTED]. APS is responsible for obtaining the air permit, acid rain permit, and all other required permits applicable to the project. Under Option Two and Option Three, the air permit must be final by December 1, 2006.
10. Proposal assumes availability of concrete and all other commodities required to meet schedule.
11. Proposal is based on roadways being crushed rock surfacing; excludes landscaping and irrigation; excludes CCTV and plant communication systems.
12. Spare parts not included.
13. Performance guarantees and LD's back-to-back with EPC contract provisions.
14. Excludes P&P bond.
15. APS to be responsible for all FERC filings and approvals.
16. Proposal excludes all sales, use, gross receipts, business & opportunity, transaction privilege, and other taxes. All excluded taxes for which Bidder, TIC, GE or Power Engineers becomes responsible shall be added to monthly billing without mark-up.
17. APA or PPA to be executed by September 15, 2006.
18. ACC approval of APA or PPA, and Site Lease applicable to Option Two and Option Three, and all other required permits, to be obtained and become final by December 1, 2006.

* * * * *

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Yucca Units 5 & 6, LLC

CONFIDENTIAL

Project: APS Yucca 2x LM6000
Location: Yuma, AZ
6/26/2006

Cash Drawdown Schedule - APS Direct Payments
No Third Party Construction Financing

Month	Date	Monthly	Cumulative
1	December-06	\$	
2	January-07	\$	
3	February-07	\$	
4	March-07	\$	
5	April-07	\$	
6	May-07	\$	
7	June-07	\$	
8	July-07	\$	
9	August-07	\$	
10	September-07	\$	
11	October-07	\$	
12	November-07	\$	
13	December-07	\$	
14	January-08	\$	
15	February-08	\$	
16	March-08	\$	
17	April-08	\$	
18	May-08	\$	
19	June-08	\$	

DG Power/APS

Key messages - Provide any details regarding project uncertainty (e.g., commodity and equipment price volatility, labor availability and cost) that APS can use to describe the project costs and associated risk.

- Labor Availability & Costs - Labor costs have risen 10%+ on the average hourly wage rate in the last several months. In addition, subsistence has gone from \$30-\$60/day to \$50-\$85/day. Where they are headed a year from now is dependent on a number of factors, including - availability of housing and amenities in the project's specific geographic area; actual number of projects in a much larger geographic area that have a large number of craft man-hours; area competitors' wage and benefit packages; actual work week hours and availability of overtime, etc.

If the current workload/state of industrial construction remains at its current level, we don't anticipate significant additional exposure from an availability and cost standpoint. The critical factors in drawing any needed additional labor from outside of our core work force has always been and still remains - wage & subsistence along with the project's work schedule (available overtime), followed by project location.

- Plant Equipment Costs - We have experienced price increases recently as high as [REDACTED] on the cost of a variety of plant equipment. The time period this has occurred is the last 6-9 months. Actual quotes on plant electrical and mechanical equipment typically contain the following qualification(s), which is becoming more of the norm than not: Vendor "X" will escalate until an order and substantial down payment has been provided. Vendor "Y" will escalate until the equipment ships, which puts the buyer at potentially substantial risk on long lead items. Many other vendors offer tiered formulas for price escalation.

With respect to pricing Yucca Energy, we received the following qualifications from equipment vendors: *"Due to the current volatility/availability issues in the carbon steel market, pricing quoted herein will be adjusted up or down to reflect market costs at the time we are released to procure materials. Pricing will be based on a tiered schedule, reflecting the portions of the equipment scope that are impacted by their respective markets:*

0% of price will remain firm (today's price)

45% of the proposal price: Escalation at an annual rate of [REDACTED] (prorated monthly)

10% of the Proposal Price (labor): BLS - Series Id# - pcu332313332313 - Plate work Manufacturing.

30% of the Proposal Price: BLS - WPU-101 - Metal Products - Iron & Steel.

15% of the Proposal Price: BLS - WPU - 1178 Electrical Components & Accessories

All equipment is subject to prior sale."

Another example is:

"Prices are firm for immediate manufacture and shipments on or before June 30th, 2007. The prices for shipments within the second half of 2007 and beyond are subject to adjustment upward or downward to reflect changes in Copper, Carbon Steel, Silicon Steel and Oil between the date the quotation or bid was made and the date of shipment."


The point of this is that it is very difficult to evaluate and apply the proper amount of escalation and contingency to cover the plant equipment risk on projects currently being priced that do not award until well into the future.

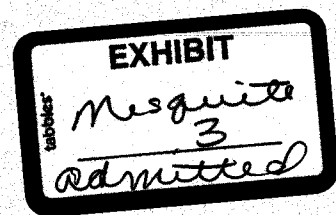
- Commodity/Bulk Material Costs - Due to the current volatility of the metals and plastics market, current material pricing/delivery is based on current mill/manufacturers pricing and seller's manufacturer or supplier's stock, and is subject to prior sale. We are hearing everything from price validity of hours to days, and even price in effect at time of delivery, not order entry (much like the Plant Equip. qualification above). Adjustments to sell prices are being made weekly and monthly by increasing mill/manufacturers base prices, with additional surcharges unknown to buyers until notifications from the mills/manufacturers.

Where the market will be when actual procurement and payment for the required bulk materials happens is unknown at this time. The last paragraph in the previous bullet above applies here as well.

Another difficult commodity to price for future work has been cement powder. Pricing and availability has been volatile and difficult to obtain firm commitments on for future work.

Our intent was to provide a brief overview of past, current and future labor, plant equipment and commodity/bulk material pricing volatility and availability, as requested from APS. Furthermore, we hope our efforts have helped facilitate further project evaluation from a future cost standpoint with its associated risk. Please feel free to contact me with any questions or concerns.

Regards, 



Detailed Revenue Req'm't
Analysis Results

Assumptions

Technology	GE 2xLM6000
COD	6/1/2008
Number of Units	2
Capacity/Unit (MW)	47.75
Installed Capacity (MW)	95.5
Heat Rate (Btu/kWh)	9,946
O&M - Fixed (\$/kW-yr)	
O&M - Variable (\$/MWh)	

Gas Transport Allocation
Gas Transport Allocation
Firm Gas Reservation
Gasline Lateral

12 months/year

Book Life
Tax Life
Income Tax Rate

30 Years
15 Years
39.30%

Annual Escalation Rates
Capital Cost
Variable O&M
Fixed O&M

Cost of Capital			
Ratio	Cost	Weighted	
Debt	55.00%	7.75%	4.26%
Equity	45.00%	10.25%	4.61%
Before-tax WACC		8.88%	
After-tax WACC		7.20%	

Property Tax	2005
Base Year	2005
Assessment ratio	25.0%
Tax rate	13.09%
Annual Escalation	2.0%

Imputed Costs	
S&P Discount Rate	
S&P Risk Factor	
Pre-Tax ROE	

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Annual Revenue Requirement Analysis Results

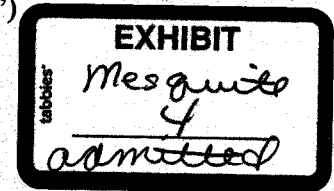
GE 2xLM6000 @ YUCCA PLANT 6/1/2008 COD

Millions of Dollars

	APS Self-Build			DGP-1 Over/(Under) APS Self-Build			DGP-2 Over/(Under) APS Self-Build			DGP-3 Over/(Under) APS Self-Build		
	Fuel	O&M	Capital Related Total	Fuel	O&M	Capital Related Total	Fuel	O&M	Capital Related Total	Fuel	O&M	Capital Related Total
2008	8.1	0.6		0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	2.6
2009	10.1	0.9		0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	3.5
2010	9.1	0.9		0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	3.4
2011	9.8	1.0		0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	3.4
2012	8.3	0.9		0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	3.3
2013	7.4	0.9		0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	3.3
2014	7.8	0.9		0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	3.2
2015	7.6	0.9		0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	3.2
2016	7.6	1.0		0.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	3.1
2017	8.5	1.0		0.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	3.0
2018	9.3	1.1		0.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	2.8
2019	9.0	1.1		0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	2.7
2020	9.2	1.1		0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	2.5
2021	8.5	1.1		0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	2.3
2022	8.1	1.1		0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	2.1
2023	8.7	1.1		0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	1.9
2024	9.4	1.2		0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	1.6
2025	9.2	1.2		0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	1.3
2026	9.4	1.2		0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	1.0
2027	9.6	1.2		0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.8
2028	9.8	1.3		0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4
2029	10.0	1.3		0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4
2030	10.2	1.3		0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4
2031	10.4	1.4		0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4
2032	10.7	1.4		0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3
2033	10.9	1.4		0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3
2034	11.1	1.5		0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3
2035	11.5	1.5		0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3
2036	11.9	1.5		0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2
2037	12.3	1.6		0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2
2038	10.3	0.9		0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1
NPV@	110.4	12.6		0.0	0.0	7.5	0.0	0.0	7.7	0.0	0.0	29.8
7.20%												29.8



MESQUITE POWER, L.L.C., SOUTHWESTERN POWER GROUP II, L.L.C. AND
BOWIE POWER STATION, L.L.C.'S ("MESQUITE/SWPG/BOWIE")
SECOND SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY
DOCKET NO. E-01345A-06-0464



- LVR 2-3
- (A) When did APS decide to request the "direct build" option for the Yuma area?
- (B) Did APS develop the "direct build" option independent of its receipt, review analysis and evaluation of proposals received from the merchant generator community in response to the Yuma RFP?
- (1) If so, please provide a copy of all documents and analyses prepared or considered by APS in connection with the independent development of the "direct build" option. [Note: If such documents and analyses are included in the information previously provided to the Merchant Generators by APS, please identify such information by notebook binder, tabular section, page number, CD title and/or any other appropriate reference.]
- (2) If so, please identify by name, employer, title and position description, the individual(s) who participated in the independent development of the "direct build" option.
- [a] In addition, please describe the nature of the participation, if any, such individuals had in connection with APS' receipt, review, analysis and evaluation of proposals received from the merchant generator community in response to the Yuma RFP.
- (3) If so, when, in relation to the Yuma RFP process, did APS independently develop the "direct build" option?
- (C) If APS did not independently develop the "direct build" option, please explain why it did not.
- (1) Please identify and provide copies of all responses to the Yuma RFP that were reviewed and considered by APS in connection with the development of the "direct build" option.
- (D) Please provide copies of all presentations made to APS' management and Board of Directors in support of the decision(s) to consider the "direct build" option, and the manner in which and data upon which the same would be developed.
- (1) Please provide copies of all studies, reports, internal memoranda and emails which document the decision(s) to consider and pursue development of the "direct build" option, and the data upon which the same would be developed.

**MESQUITE POWER, L.L.C., SOUTHWESTERN POWER GROUP II, L.L.C. AND
BOWIE POWER STATION, L.L.C.'S ("MESQUITE/SWPG/BOWIE")
SECOND SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY
DOCKET NO. E-01345A-06-0464**

RESPONSE:

(A) APS decided to evaluate a direct build alternative in the spring of 2005 when it decided to issue the Yuma RFP, knowing that it needed the direct-build alternative as a reference point when it considered RFP responses. As part of APS's on-going Resource Planning efforts, APS develops general cost estimates for new power plant construction assuming multiple technologies and sites. The Company's direct build estimate evolved from a planning estimate prior to the release of the RFP to the more refined location-specific estimate that supports the Application. The Company indicated in the RFP sent to all prospective bidders (see Exhibit B to the Application, at page 4) that the direct build cost estimate would provide a reference against which responses to the planned Yuma RFP could be evaluated. APS decided to include the direct build alternative in its Application because it had an obligation to provide the information to the Commission as a reference point and because the self build alternative may be the most economic and best fit to meet the Yuma customers' needs.

(B) APS developed its estimate of the cost to construct a direct build generation plant based on information it received from third-party vendors, engineers and contractors that are not affiliates of the Company. APS's estimates for direct-build did not incorporate any cost information or estimates provided by bidders as part of their RFP responses.

(1) Included in the Competitive Confidential Notebook Titled "2005-2006 Yuma RFP Generation Evaluation (11/13/06)," behind the Cost and Performance Summary tab located in the "June-July 2006" section, is a document titled "Additional Yucca Power Plant Peaking Generation Cost Estimate." That document provides an overview of the information and analyses used by APS to develop its cost estimate for the direct build alternative, as well as a table showing a comparison of the cost estimate for that direct build alternative to the most economic proposal submitted in response to the Yuma RFP. The documents supporting the development of the cost estimate for the direct build alternative are being provided as APS10721 through APS 10750. Those documents are Competitively-Sensitive Confidential Information and are being provided pursuant to Protective Agreement.

(2) The development of the APS direct build cost estimate was done under the direction of Nick Svor, Director, Fossil Projects, APS. The

**MESQUITE POWER, L.L.C., SOUTHWESTERN POWER GROUP II, L.L.C. AND
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SECOND SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY
DOCKET NO. E-01345A-06-0464**

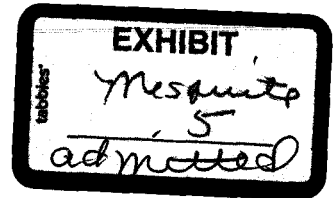
~~lead person under Mr. Svor responsible for the development of the direct build cost estimate was John Velotta Manager Generation Expansion.~~ A number of other individuals provided data to Mr. Velotta (related to such topics as environmental permitting, water resources and gas transportation) but had no direct responsibility for the direct build estimate. Mr. Svor, as Director of Fossil Projects, is responsible for planning and managing major plant modification projects, such as the retrofit of scrubbers and/or baghouses presently under way at the Cholla Power Plant. In addition, his department provides cost and schedule estimates for all new generation additions for APS. If it is determined APS will build any of its future generation, Fossil Projects would be responsible for overseeing all facets of that construction. Mr. Velotta has been a project manager on specific projects assigned to the Fossil Projects group. Both Mr. Svor and Mr. Velotta are employees of APS.

[a] ~~Mr. Velotta, working under the direction of Nick Svor, reviewed proposals submitted in response to the Yuma RFP from a technical perspective to ensure that the scope of work would satisfy the standards for APS generating units.~~

- (3) See the response to LVR 2-3 (A).
- (C) See the response to LVR 2-3 (B).
 - (1) See the response to LVR 2-3 (B) (1)
- (D) APS did not make presentations to management or the Board of Directors specifically to "support decision(s) to consider the 'direct build' option." APS did make presentations to management to update them on the status of the Yuma RFP. Those presentations addressed both the proposals received from the competitive market in response to the Yuma RFP and the direct-build alternative. APS considered the direct build alternative because it would have been imprudent not to evaluate the available options for meeting its customers' needs, including evaluating proposals received from the competitive wholesale market against the cost to direct-build a new generating resource. See the response to MJR 1.12, specifically APS09191, APS09192 and APS09193.
 - (1) See the response to LVR 2-3 (D). See also the response to MJR 1.12.

ARIZONA CORPORATION COMMISSION STAFF'S
FIRST SET OF DATA REQUESTS TO
ARIZONA PUBLIC SERVICE COMPANY
DOCKET NO. E-01345A-06-0464

August 1, 2006



MJR 1.11 Please provide a description of the proposal evaluation process including but not limited to the personnel involved in the evaluation (identified by their title and their role in the evaluation process) and the criteria used to evaluate the proposals.

RESPONSE: The threshold criteria the proposed generation resources needed to satisfy was reliability. First of all, a facility needed to be inside the Yuma load pocket to provide any value, and once that was established the resource needed to provide a 1 outage in 10 years (or better) loss of load probability (LOLP). Tables in the "Screening Analysis" section of the confidential document provided to Staff shows the reliability results of the various technologies. Secondly, a busbar analysis was used to compare economics to select the proposals that APS would short-list. By way of the reliability and busbar cost screening APS selected half of the proposals.

Once the short-list was established APS conducted interviews with each short-listed entity to clarify their proposals and to address any concerns of the parties. At this point APS allowed the short-listed entities to refresh their offers then APS performed a system revenue requirement analysis to determine which proposal(s) provided the most value. After this analysis was complete APS elected to continue discussions with one entity that provided proposals that offered the most value relative to the other short-listed proposals. The developer's most attractive proposal consisted of two new GE NextGen LM6000 units located at the existing Yucca Power Plant.

The primary individuals involved with the evaluation:

Title	Responsibility
Director - Corporate Planning and Resource Acquisitions	Oversight for planning and resource procurement
Manager - Resource Acquisitions	Project coordination and leadership
Manager - Gen. Mkt. Analysis & Planning	Needs assessment
Sr. Consulting Engineer - Resource Planning	Economic analysis
Manager - Generation Expansion	Technology assessment, APS-build cost estimates

Note: numerous other individuals were involved to a lesser extent to provide information related to areas such as fuel supply, environmental

Supplemental Response to Staffs First Set of Data Requests to Arizona Public Service
Company Docket No. E-01345A-06-0464
September 20, 2006

- *Supplemental Response to MJR 1.11: Provide the name and title of each responsible party listed in the table provided in MJR 1.11*

Response:

Director:	Patrick Dinkel
Manager -Resource Acquisitions:	Gordon Samuel
Manager – Generation and Marketing Analysis and Planning:	Paul Smith
Senior Consulting Engineer:	Nguyen Van
Manager – Generation Expansion:	John Velotta

Dale Fredericks



From: Gordon.SamuelJr@aps.com
Sent: Monday, October 16, 2006 8:47 AM
To: Patrick.Dinkel@aps.com; dale@dgpower.com
Cc: halld@ticus.com; mlidinsky@powereng.com; david1.alexander@ge.com
Subject: RE: DG Power corrected bid for Yuma

The PPA pricing was reduced by less than 2%. This would not have a material impact on the PPA -vs- ownership decision, thus I did not feel it was necessary to modify our Filing.

-----Original Message-----

From: Dinkel, Patrick (F32614)
Sent: Sunday, October 15, 2006 2:13 PM
To: 'dale@dgpower.com'; Samuel Jr, Gordon A(Z38743)
Cc: 'halld@ticus.com'; 'mlidinsky@powereng.com'; 'david1.alexander@ge.com'
Subject: Re: DG Power corrected bid for Yuma

Dale,
I'll touch base with Gordon to make sure I understand the error. In general, our filing is only about PPAs vs ownership, so unless we find a way to carve tens of millions of dollars out of the cost of the PPAs the salient points don't change. We are not asking the ACC to make a decision on the different ownership scenarios and APS won't make its decision until we get an ACC order. That said, we'll get back with you in the next day or two. We have hearings at the ACC on our rate case this week so we're less available than normal.
Thanks.

Patrick Dinkel
602-250-2016

-----Original Message-----

From: Dale Fredericks <dale@dgpower.com>
To: Samuel Jr, Gordon A(Z38743) <Gordon.SamuelJr@aps.com>
CC: Dinkel, Patrick (F32614) <Patrick.Dinkel@aps.com>; Dick Hall <halld@ticus.com>; Mike Lidinsky <mlidinsky@powereng.com>; David Alexander <david1.alexander@ge.com>
Sent: Sun Oct 15 13:45:06 2006
Subject: DG Power corrected bid for Yuma

Recently you indicated that APS had not advised ACC staff of our August 30 proposal that corrected an earlier error in cost estimating. We ask that this be done so that in making its comparison and evaluation of the PPA and our turnkey sale proposals, the correct figures are utilized by ACC staff. Please confirm when this has been accomplished, or call if this is a problem.

Meanwhile, please let me know if there is anything that we can do to assist in getting a prompt determination by the ACC.

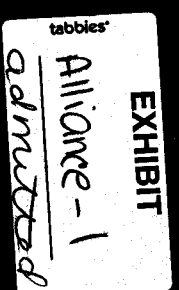
Dale Fredericks

Email Firewall made the following annotations

----- NOTICE -----

This message is for the designated recipient only and may contain confidential, privileged or proprietary information. If you have received it in error, please notify the sender immediately and delete the original and any copy or printout. Unintended recipients are prohibited from making any other use of this e-mail. Although we have taken reasonable precautions to ensure no viruses are present in this e-mail, we accept no liability for any loss or damage arising from the use of this e-mail or attachments, or for any delay or

- errors or omissions in the contents which result from e-mail transmission.
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Yuma County Board of Supervisors

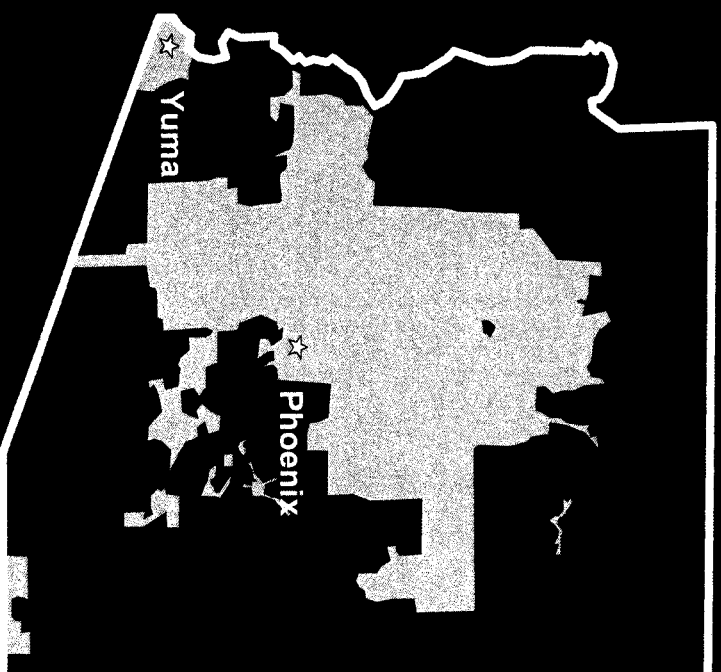
APS Energy Update
March 6, 2006
Donna Phipps

Stan Sierra

Asset Manager APS Transmission & Distribution

Who is APS?

- Arizona's largest and longest-serving electric utility.
- Serves all or portions of 11 of the state's 15 counties – or about 43,000 square miles
- Since 1886, APS has been providing safe, reliable energy to the communities and people of Arizona; serving Yuma since 1925.
- One of the two fastest-growing utilities in the country.
- One millionth customer came on line in 2005



Agenda

- Yuma Area Electric Power Needs
- Delivery System Expansion Plans
- Generation Expansion Plans
- Questions and Answers

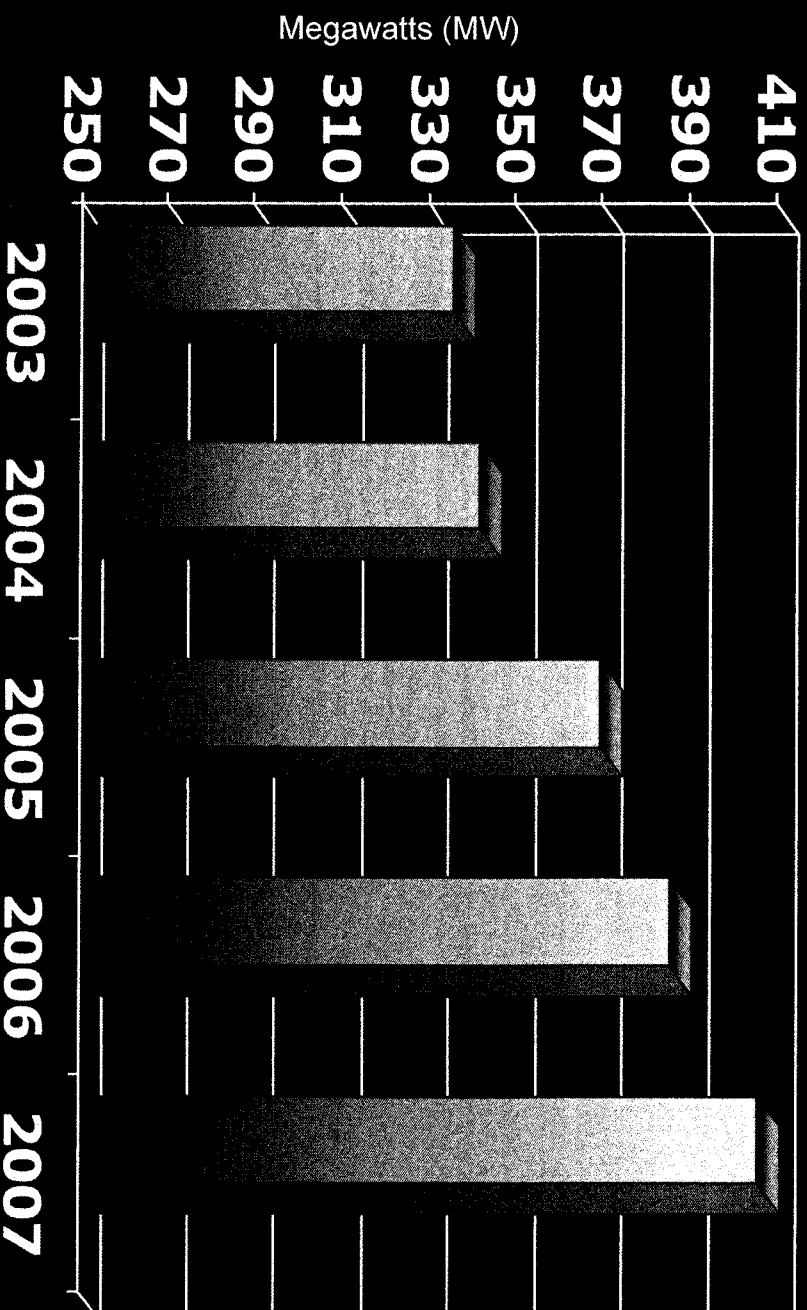
2006 Resources



Total Resources	436 MW
Load Demand	<u>-386 MW</u>
Surplus	50 MW

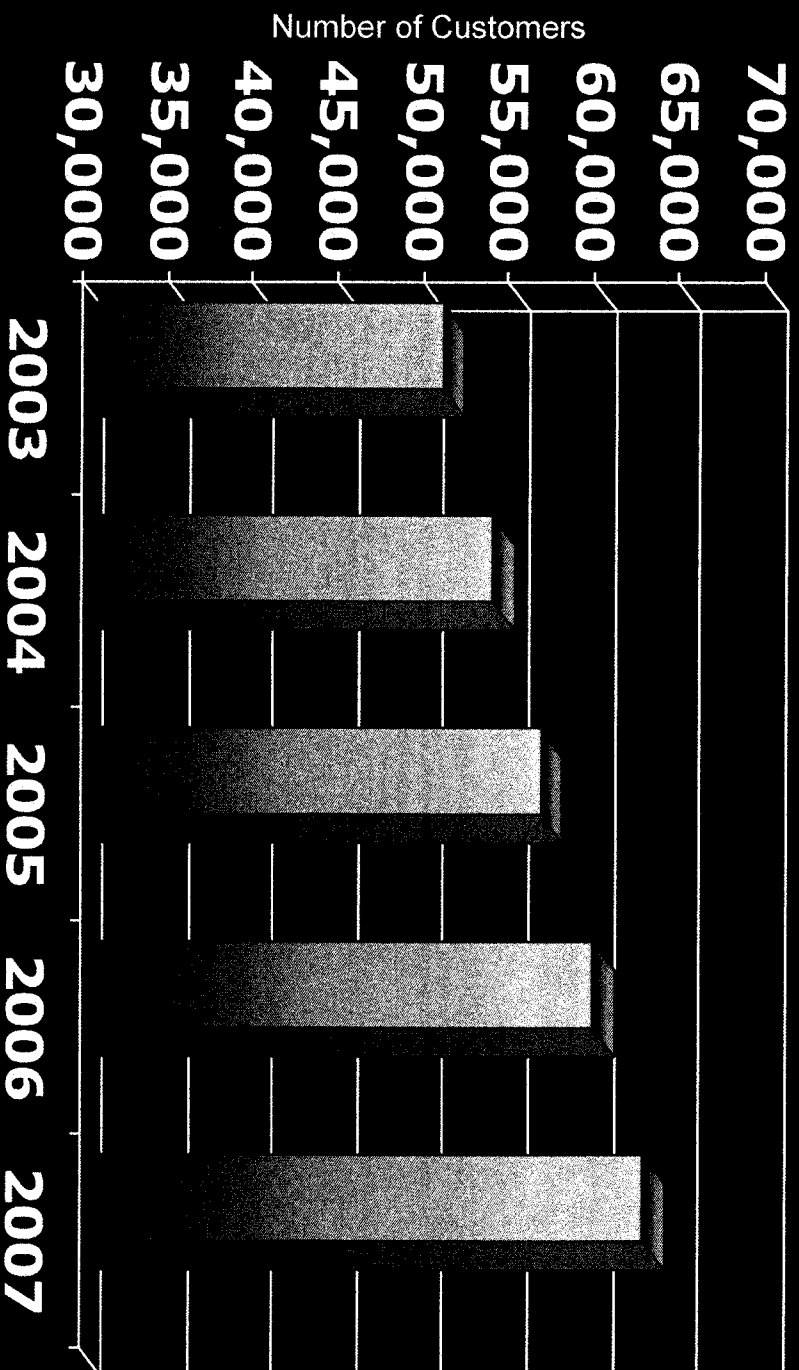
Yuma Area Electric Power Needs

Area Peak Demand Continues to Rise



Yuma Area Electric Power Needs

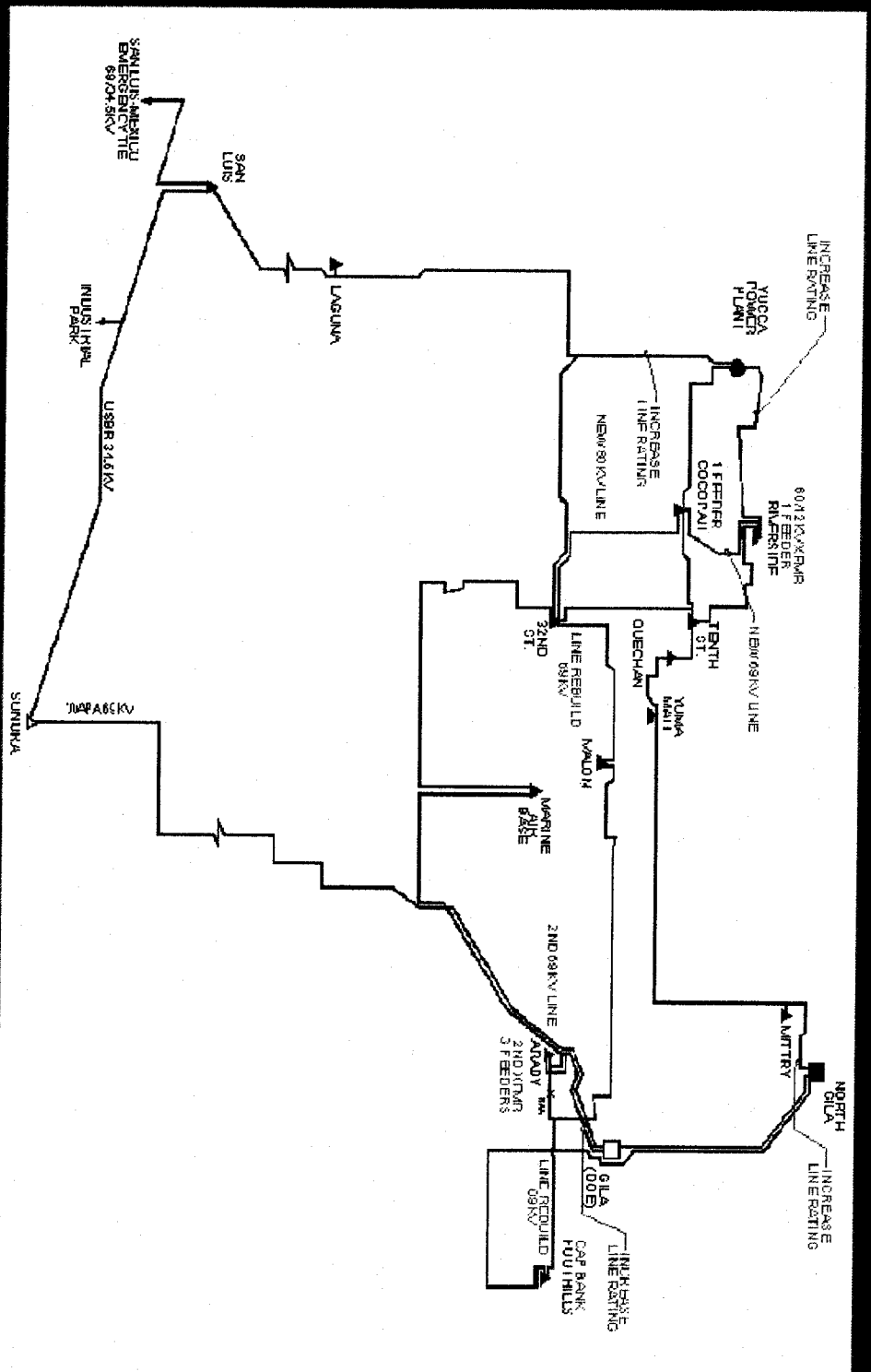
Customer Growth at Similar Rate



APS is Planning for Customer Needs

- Forecast Customer Needs with Inputs from:
 - Key customers
 - Major industrial, commercial, and residential developers
 - City and County planners
- Plan for Necessary System Improvements
 - Transmission
 - Distribution
 - Generating plants
- Construct/Acquire Facilities
- Updated Annually

2006 System Improvements



Transmission Additions 2007-2015

■ Transmission Lines

- 114 Miles New 500kV
 - Palo Verde – North Gila
- 18 Miles of New 230kV
- 47 Miles of New 69kV
- 44 Miles of Upgraded 69kV

■ Transmission Substations

- 1 New Substation
- 2 New Transformers

Distribution Additions 2007-2015

- 6 New Substations
- 9 New Transformers
- 3 Transformer Upgrades

Gordon Samuel

Financial Advisor

APS Resource Acquisition

Yuma Area Generation Expansion

- Request for Proposal (RFP) Process
 - RFP issued in September 2005 for reliable peaking capacity in Yuma
 - Seeking 100 - 200 megawatts of generation
 - Multiple units provide better value (reliability)
 - Deliveries commencing between June 1, 2007 and June 1, 2008
 - Resource needs to be inside the Yuma load pocket

Yuma Area Generation Expansion

DG Power selected

- Lowest life-cycle present value cost
- Construction expected to begin by end of 2006
- Expected in service summer 2007
- Peak construction craft is expected to be 106 in March 2007
- APS will operate
- Will require Arizona Corporation Commission (ACC) approval

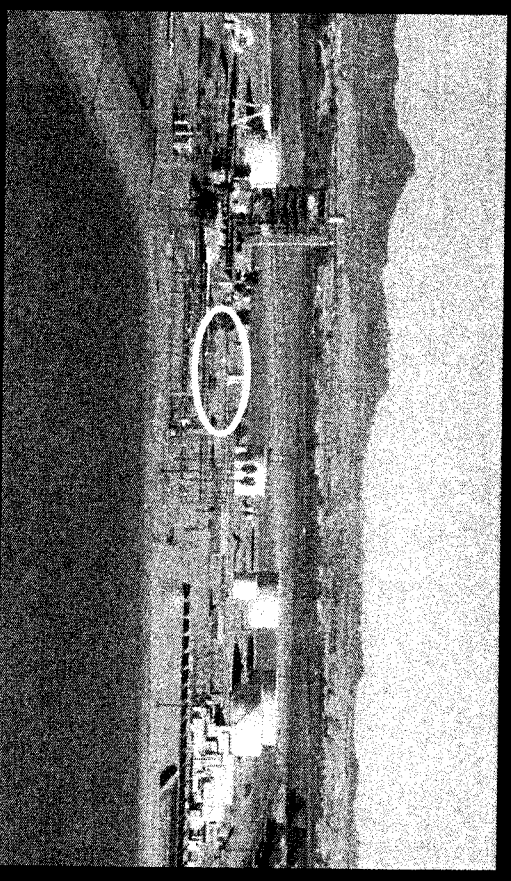
DG Power Experience

- Developed peaking plants in California
- Two PG&E plants coming on line in 2008 and 2009
- Other international industrial cogeneration and independent power projects
- Assembled team with proven track record – GE, TIC, Power Engineers

Yucca Power Plant

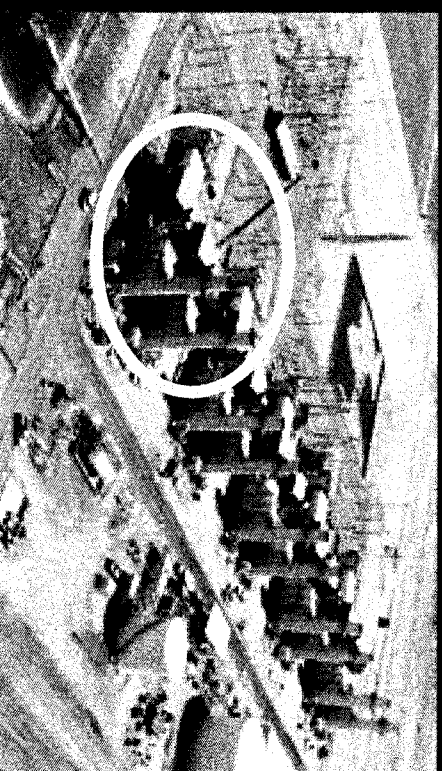
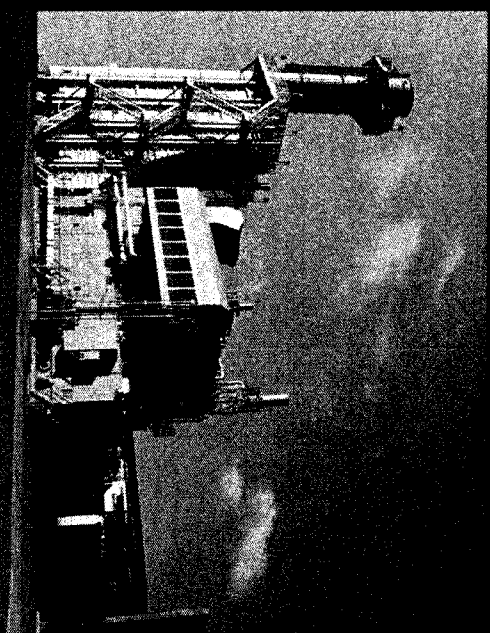
Most viable option for expansion

- First unit on line in 1959
- Serving APS customers since 1971
- Adequate space for expansion
- Sufficient transmission capability
- Solar plant dedicated in 2002
- Operate with existing staff



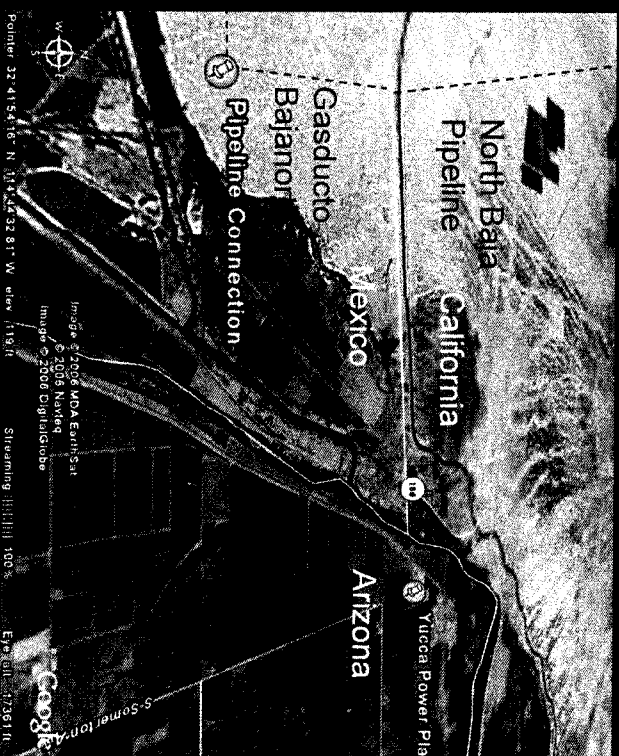
Yucca Power Plant Expansion

- Two 48 MW gas units
- Best available emission-control technology
- Low water use
- New units similar to those at APS Sundance Power Plant in Coolidge, Ariz.



Additional Supply of Natural Gas Needed

- APS is evaluating 2 alternatives for natural gas supply
- Upgrade of the existing El Paso line
- New gas lateral from the North Baja gas pipeline



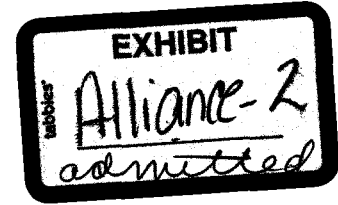
In Summary

- Yuma service territory continues to grow at rate 5 times the national average
- Generation, transmission and distribution projects part of overall plan
- APS providing reliable electric service to area for more than 80 years
- Company well-positioned to ensure reliable electric service for the future

Questions?

APS Energy Update

Thank You!



Arizona Public Service Co.

**Request for Proposal for
Long-Term Capacity Supply
May 31, 2005**

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1. INTRODUCTION

1.1. Purpose

Arizona Public Service Company (“APS”) is a public service corporation with retail load in 11 of Arizona’s 15 counties, with approximately 70-80% of its load located in the Phoenix metropolitan area. During the normal course of its business operations, APS continuously evaluates alternatives to fulfill its need to maintain reliable and cost-efficient generation capacity for its customers. As detailed in the APS Summer Supply and Demand Balance calculations (see Attachment 1), APS, which is anticipating customer growth of nearly 4% per year, has a need for approximately 1,300 MWs of summer generation capacity in 2007. In this Request for Proposals (“RFP” or “RFP Process”), APS requests competitive proposals (“Proposals”) for summer capacity totaling at least 1,000 megawatts (MW) for a period of not less than five years beginning with deliveries between June 2007 and June 2008. Summer months are defined as June through September, and the minimum amount of capacity to be considered per Proposal is 25 MW. Persons or entities responding to this RFP are referred to as “Respondents”.

Attachments 2a-2e and 3a-3e to this RFP identify the minimal monthly generation capacity and energy APS estimates that it will need to reliably meet its responsibilities as provider of last resort for its regulated retail customers and existing contractual obligations. These Attachments are provided to help Respondents understand APS’ minimal generation capacity needs for reliability purposes, which are only in the summer months. APS encourages Respondents to provide Proposals for non-summer capacity or energy if the Respondent believes the Proposal can provide an economic benefit to APS customers.

1.2. Background

APS is conducting this RFP pursuant to a Settlement Agreement and corresponding Arizona Corporation Commission (“ACC” or “Commission”) Decision No. 67744 in

Docket No. E-01345A-03-0437. Specifically, this RFP is issued pursuant to and consistent with Section IX of the Settlement Agreement (“Settlement”), entitled “Competitive Procurement of Power”. In this regard, paragraph 78 of the Settlement provides as follows:

Notwithstanding its ability to pursue bilateral agreements with non-affiliates for long-term resources, APS will issue an RFP or other competitive solicitation(s) no later than the end of 2005 seeking long-term future resources of not less than 1,000 MW for 2007 and beyond. The following conditions will apply to this RFP:

- a. For purposes of this section, “long-term” resources means any acquisition of a generating facility or an interest in a generating facility, or any PPA having a term, including any extensions exercisable by APS on a unilateral basis, of five years or longer.*
- b. Neither PWEC (Pinnacle West Energy Corporation) nor any other APS affiliate will participate in such RFP or other competitive solicitation(s) for long-term resources, and neither PWEC nor any other APS affiliate will participate in future APS competitive solicitations for long-term resources without the appointment by the Commission or its Staff of an independent monitor.*
- c. Nothing in this section shall be construed as obligating APS to accept any specific bid or combination of bids.*
- d. All renewable resources, distributed generation, and DSM (Demand Side Management) will be invited to compete in such RFP or other competitive solicitation and will be evaluated in a consistent manner with all other bids, including their life-cycle costs compared to alternatives of comparable duration and quality.*

Consistent with and subject to the limitations of the foregoing Settlement, APS reserves the right to acquire, build and/or develop resources as it finds appropriate and necessary to secure reliable and cost-efficient service for its customers. APS intends to compare Proposals against new-build alternatives in determining the appropriate purchases and/or acquisitions for APS' future energy and/or capacity needs.

1.3. Product Description

For reliability purposes, APS is seeking Proposals involving the purchase of summer generation capacity for a term of at least five years beginning with delivery between June 1, 2007 and June 1, 2008. To meet the summer requirements, the capacity and energy should have the ability to be schedulable and APS prefers the capacity and energy to be dispatchable with load-following capabilities.

All capacity and energy offered in a Proposal must be deliverable to the APS transmission system in order to serve APS retail load. Location of the generating resource will be considered, and any impact it may have inside transmission constrained areas, such as Yuma, will be taken into account. Bid pricing should reflect the capacity at the delivered bus and all costs to deliver the capacity to such bus. Proposals must be for generating capacity of at least 25 MW. APS strongly prefers that unit-specific Proposals involve a full unit at a single site for which APS will have full scheduling and dispatch authority. APS also prefers automatic generation control ("AGC") functionality in order to meet its load-following requirements.

APS will consider all Proposals that meet the aforementioned requirements. APS welcomes other Proposals in excess of its reliability requirements and for non-summer capacity and/or energy. APS will evaluate the reliability, cost and customer rate impacts of all Proposals.

No PPAs of a term shorter than five years will be considered in this RFP.

If a Proposal involves a generating unit not yet fully commercially operational, in addition to the other requirements outlined in this Section, the Respondent must provide APS with sufficient data to establish that the proposed generating unit(s) will achieve the commercial operation date designated in the Proposal, and at that date be fully capable of producing the capacity and/or energy stated in the Proposal. The Proposal must provide an overview and analysis of the proposed generating unit in a separate attachment as part of the Respondent's response package.

APS reserves the right to require additional information not identified in this RFP in order to fully evaluate the costs and impacts of any Proposal.

1.4. Changes to RFP, Schedules and Addenda

APS reserves the right to unilaterally revise or suspend the schedule, or terminate this RFP process at its sole discretion without liability to any Respondent. Any such changes will be posted on the RFP Web Site (Section 2.3).

2. BID SUBMITTAL

2.1. General Instructions

Respondents should meet all the terms and conditions of the RFP to be eligible to compete in the RFP Process. Respondents should follow all instructions contained in the RFP. Response Packages have been provided and Respondents must complete all relevant documents. All RFP documents, including any updates, can be found on the RFP Web Site (Section 2.3). It is the Respondent's responsibility to advise APS' Official Contact (identified below in Section 2.8.2) of any conflicting requirements, omissions of information or the need for clarification before Proposals are due. Respondents should clearly organize and identify all information submitted in their Proposals to facilitate review and evaluation. **Failure to provide all the information requested in the RFP process or failure to demonstrate that the Proposal satisfies all of the APS requirements will be grounds for disqualification.** Prior to

the short-listing of Proposals, all correspondence and communications from the Respondent to APS must be made in writing through the Official Contact or via the e-mail address shown below.

2.2. Respondent's Qualifications

APS will consider Proposals from any qualified Respondent, including electric utilities (e.g., investor-owned, municipal, co-operative or tribal), independent power producers, qualifying facilities, qualified developers of generation (including renewable resources generation, distributed generation and DSM), power marketers and/or exempt wholesale generators.

Each Respondent shall respond fully and accurately to the Statement of Financial Conditions and Creditworthiness Qualifications included with the Response Package. In addition to that information, during the Proposal review process, APS may require each Respondent to provide further credit and financial information in order to assist APS in addressing and weighing the creditworthiness of each Respondent.

APS invites Proposals from all potential suppliers who are capable of meeting the conditions of the RFP, and APS will evaluate all responsive bids. Consistent with the Settlement, bids from APS' affiliates will not be accepted.

2.3. RFP Web Site and Communications

Public information associated with the RFP, including all RFP documents as issued and updates, are available at www.aps.com/RFP ("RFP Web Site").

Prior to the bid submission deadline, all communications should be directed to APS via the Web Site or by sending an e-mail to reliabilityRFP@aps.com. Based upon the nature and frequency of the questions APS receives, APS will choose to either respond to individuals directly, post a response to the question on the RFP Web Site (without disclosing the Respondent's name), or address the question through the bidder's conference (see Section 2.5).

2.4. Schedule

The following schedule and deadlines apply to this RFP:

ACTIVITY	DATE
Issue RFP	May 31, 2005
Bidder's Conference	June 15, 2005
Notice of Intent to Bid Due	June 22, 2005
RFP Responses Due	July 18, 2005, 2pm MST
Shortlist Notification	August 30, 2005
Selection Process Complete	October 17, 2005

* Dates may be advanced or delayed at APS' sole discretion.

2.5. Bidder's Conference

APS currently plans on conducting a bidder's conference for interested Respondents on:

Time: 9:00 am MST

Date: June 15, 2005

Location: Phoenix, AZ

Interested Respondents that plan on attending the conference should RSVP by e-mail to reliabilityRFP@aps.com . Please provide the names, titles and phone numbers of the individuals who will be attending and a brief description of the Respondent's proposed project if possible. The purpose of the bidder's conference is to allow potential Respondents the opportunity to ask questions and seek clarification about the RFP process. To make the meeting as productive and informative as possible, Respondents are encouraged to submit any questions in writing using the e-mail address above prior to the conference. Attendance is not mandatory but may serve to clarify any preliminary issues regarding the RFP. Teleconferencing capabilities will not be available; however, relevant information from the bidder's conference will be posted on the RFP Web Site.

2.6. Notice of Intent to Bid (NOIB)

In order to identify persons or entities interested in submitting a Proposal, and to assure that all those having such an interest receive any subsequent information distributed in the RFP Process, interested parties are requested to submit via Web form, e-mail or FAX, a non-binding NOIB on or before 5:00 P.M. MST on June 22, 2005. The form for the NOIB is part of this RFP Response Package and is located on the RFP Web Site.

2.7. Proposal Submittal Fee

A non-refundable fee of \$5,000 per Respondent will be required in order to qualify the Proposal(s) for consideration. The fee should be payable in a check made out to "Arizona Public Service Company." Proposal submittal fees must be paid by the bid submittal deadline (see Section 2.8.2).

2.8. Proposal Content and Submission Instructions

2.8.1. In addition to the information described elsewhere in this RFP, all Respondents must include as part of their Proposal all relevant information requested in the Response Package. Proposals that do not contain all required information or do not fully reflect the bid requirements may not be considered at APS' sole discretion. In addition to the required information, Respondents should include with their Proposals any other information that may be needed for a thorough understanding or evaluation of their Proposals.

2.8.2. Complete Proposals, including all exhibits, must be received on or before 2:00 p.m. MST on July 18, 2005, by APS' Official Contact at the address below. Respondents shall submit one hard copy of the original Proposal and one "wet" original signature demonstrating that the signatory has full authority to bind the Respondent to all of the terms and conditions contained in the Proposal. In addition, Respondents must submit one electronic version of their Response

Package on a compact disc. **All Proposals must expressly confirm that the pricing and terms and conditions of the Proposal will be binding and held open in the manner described in Section 2.8.3. APS will not accept late Proposals or Proposals delivered by e-mail, FAX or other electronic means. Only sealed Proposals will be accepted.** On the envelope, Respondent shall indicate **“Response to APS RFP re. Long-Term Power Supply Resources.”** Any Proposals received after the scheduled date and time will be disqualified and a notice will be sent to the Respondent.

APS Official Contact:

Patrick Dinkel
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- 2.8.3. **All Proposal terms, conditions, and pricing are binding through the completion of the selection process, currently planned for the close of business (5:00 p.m. MST) on October 17, 2005. Any accepted Proposal will be binding in accordance with the executed definitive agreement (see Section 4.3), including through the Regulatory Approval Process described in Section 4.4.**
- 2.8.4. Respondents will be notified by August 30, 2005 if their bid has been selected for the short-list and further negotiation. This date may be advanced or delayed at APS' sole discretion. Respondents will be notified if the date is changed. Respondents with Proposals not selected for the short-list will be notified and such Proposals will no longer be considered firm or binding by APS. None of the material received by APS from Respondents in response to this RFP will be returned. All Proposals and exhibits will become the property of APS, subject to the confidentiality provisions of Section 2.9.

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2.8.5. Prior to signing any asset sales contracts or agreements with an unfinished generator, Respondents will be required to submit to APS a written and executed assurance of the approval of its board of directors or similar governing body as to the binding nature of the Proposal.

2.8.6. Prices and dollar figures must be clearly stated in \$US.

2.9. Confidentiality

With each Respondent's Proposal, APS will require all parties to sign the Confidentiality Agreement, which is found in the Response Package. APS will sign and execute the Confidentiality Agreement upon receipt from each Respondent. APS will use commercially reasonable efforts, in a manner consistent with the Confidentiality Agreement, to protect any claimed proprietary and confidential information contained in a Proposal, provided that such information is clearly identified by the Respondent as "PROPRIETARY AND CONFIDENTIAL" on the page on which proprietary and confidential material appears.

3. EVALUATION PROCESS

3.1. Proposal Review

3.1.1. Respondents are advised that price will be a major factor in APS' evaluation, with due consideration given to operational performance, reliability, deliverability, credit, environmental impacts, contract considerations and other criteria.

Respondents shall include sufficient detail to evaluate all costs associated with the Proposal(s). To ensure that Proposals will provide customer benefits, APS will compare Proposals with the benefits, including costs and reliability, of alternative resource scenarios. Proposals also will be compared and evaluated in terms of other non-price characteristics; therefore, the lowest price submittal may not be selected. The evaluation of Proposals will be based on the information provided by the Respondent and available industry information, with special emphasis on APS being able to provide reliable service and maximize the economic value to

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APS' retail customers. APS shall evaluate all Proposals in terms of price and non-price attributes and reject any Proposal that, in APS' sole discretion:

- a) Does not meet the minimum requirements set forth in the RFP;
- b) Is not economically competitive with other Proposals or resource alternatives;
- c) Is submitted by Respondents who are determined by APS to have insufficient creditworthiness, insufficient financial resources and/or insufficient technical qualifications to provide dependable or reliable service; or
- d) Fails to best meet the resource and reliability needs of APS.

In order to assess the feasibility and viability of the Proposals, the evaluation will determine the technical, physical and operational capability of the applicable generating unit(s) to meet the operating parameters specified in the Proposal. Such technical analysis will include, but not be limited to, a review of transmission access (including existing transmission contracts), natural gas and/or fuel access and/or transportation (including existing contracts), environmental conditions, certification and permit conditions and/or restrictions, unit location, maintenance history and schedules, and operational flexibility and history.

3.1.2. APS shall evaluate responsive Proposals and select for further review and negotiation a Proposal or Proposals, if any, that APS believes provides the most value and/or reliability to APS' retail customers. In the event negotiations with a Respondent or Respondents do not produce a final and fully executed contract satisfactory to APS, APS reserves the right to pursue any and all other resource options available to it.

3.1.3. APS intends to compare system impacts of short-listed Proposals against the system impacts from new-build alternatives in determining the appropriate purchases and/or acquisitions for APS' future energy and/or capacity needs.

- 3.1.4. APS reserves the right to accept or reject any or all Proposals for any reason at any time after submittal without explanation to the Respondent, or to make an award at any time to a Respondent who, in the sole opinion and discretion of APS, provides a Proposal APS deems favorable. APS also reserves the right to make an award to other than the lowest price Respondent, if APS determines that to do so would result in the greatest value to APS' retail customers.
- 3.1.5. Those Respondents who submit Proposals do so without legal recourse against APS or its directors, management, employees, agents or contractors based on APS' rejection, in whole or in part, of their Proposal or for failure to execute any agreement tendered by APS. APS shall not be liable to any Respondent or to any other party, in law or equity, for any reason whatsoever relating to APS' acts or omissions arising out of or in connection with the RFP.
- 3.1.6. If a selected Proposal involves a generating unit not yet operational, the Respondent must provide APS with a full financial guarantee, including performance bonds and/or letters of credit, up to the level of product commitments and in an amount and at a level determined by APS in its sole discretion, expressly including replacement power costs and any related penalty fees, in the event the generating unit does not become commercially operational as scheduled.
- 3.1.7. In reviewing and considering Proposals, APS will analyze potential credit and/or risk concerns in any comparison of Proposals. As part of its detailed evaluation phase, APS will specifically weigh the credit- and risk-related factors and/or costs underlying each of the Proposals. To assist APS in this review, APS requires that each Respondent include with its response package a detailed description of the proposed credit support. The pricing provided shall expressly include the costs of such credit support. APS will review and assess the sufficiency and adequacy of the proposed credit support, and if APS, in its sole discretion, determines such credit support is insufficient, it shall assess additional costs and/or expenses to any

such Proposal. APS will include in each Proposal evaluation the cost of any credit requirements from APS.

3.1.8. All renewable resources, distributed generation and DSM are invited to compete in this RFP Process and will be evaluated in a consistent manner with all other bids, with consideration given to projections as to their life-cycle costs, operational compatibility, reliability and availability.

3.1.9. Selection and elimination of Proposals and subsequent notification of Respondents at all stages of the evaluation will remain entirely at APS' discretion.

3.2. Proposal Threshold Requirements

The Respondent should provide complete and accurate information to ensure that its Proposal satisfies the Threshold Requirements listed below. APS, at its sole discretion, may reject a Proposal for further consideration if the Proposal fails to meet the Threshold Requirements or provides incomplete and/or inaccurate responses. APS may seek clarification and/or remedy of a Respondent's Proposal.

3.2.1. General Threshold Requirements

- The Proposal is received on time and complies with the submission instructions.
- The Proposal is bona fide, and the Respondent (or its guarantor) has sufficient financial capacity to support the Proposal.
- Complete and accurate answers are provided to all questions in the Response Package.
- The Proposal Submittal Fee is included.
- Capacity must be available for delivery by its proposed delivery date, not to extend beyond June 1, 2008.
- The capacity is available and deliverable to APS' transmission system.
- The capacity is at least 25 MW.
- If a PPA, the proposed term is for a minimum of five years.

3.2.2. Operating Performance Thresholds

- The Respondent must certify that it has or will have all necessary permits in effect for the identified generating unit.
- The Respondent must certify that any identified generating unit is or will be built and maintained in good working order, free of material defects, and has been and will be operated in accordance with good utility practice and applicable maintenance schedules and in compliance with all applicable laws and regulations.
- The generating unit(s) included in the Proposal(s) must be schedulable.
- APS prefers the identified generating unit be fully dispatchable and has an Automatic Generator Control that is tied into APS' Energy Control Center. The costs associated with this installation are the responsibility of the Respondent.
- If a PPA, the Respondent must be willing to coordinate the generating unit's maintenance scheduling with APS.

3.2.3. Transmission Threshold

- A map (Attachment 4) illustrating the projected 2007/2008 APS Transmission System has been included to assist the Respondents in determining possible points of delivery.
- Deliverability to APS native load customers will be taken into account.
- If the generating unit(s) is or will be located outside of APS' transmission system, the Respondent must provide a transmission plan for wheeling services from those utilities that would be required to wheel the generating unit's power to APS. The complete terms of the wheeling agreement must be provided to APS. Transmission costs to get to the APS system are the responsibility of the Respondent.

- If the generating unit is not in-service, but has a completed Generator Interconnection Study, a copy of this agreement must accompany the Respondent's Proposal.
- If the generating unit is not yet operational and will be interconnected to APS' transmission or distribution system, the Respondent must complete an Application for Generator Interconnection. A copy of this request must accompany the Respondent's Proposal. To request interconnection of a generating project to APS' system please contact:

Rex Stulting
(602) 250-1644
e-mail: Rex.Stulting@aps.com
or visit <http://www.oatioasis.com/azps/index.html> (click on link entitled Applications)

- For an unfinished resource, a final agreement between APS and the Respondent will require the Interconnection Study, or will be contingent upon this study.
- Respondents can find public information on APS transmission by visiting the above web site, and a link to this site can be found on the RFP Web Site.
- It is the Respondent's responsibility to acquire transmission data through the Westtrans Oasis site.

3.3. Screening Process

On or before August 30, 2005, APS intends to select Proposals that will be included on a short-list. This date may be advanced or delayed at APS' sole discretion.

Through the short-listing process, those Proposals that are inferior to other Proposals, in APS' sole discretion, will be eliminated from further consideration. APS will notify all short-listed Respondents that they have been included on the short-list. Similarly, APS intends to notify Respondents of those Proposals that are eliminated from further consideration within a reasonable amount of time.

APS plans to use production costing models in the Proposal evaluation process. The detailed evaluation will assess the impact of each Proposal on the APS Summer Supply and Demand Balance Assessment, including comparing the Proposal to the cost of other resource acquisition alternatives and compatibility with APS' resource needs. The results of the production costing analyses will be incorporated into the revenue requirement analysis of each short-listed Proposal.

For any short-listed asset purchase Proposal, APS will perform (a) a facility operational due diligence review of the short-listed Respondents' in-service facilities and (b) an operational and engineering review of any generating facilities that are not yet operational. Similarly, APS will witness and will receive data of any pre-commercial operation testing of any short-listed generating facilities that have not yet achieved commercial operations. The final Respondent (or Respondents) will be required to facilitate due diligence efforts by APS, including through immediate site access and the Respondent's compilation and production of related necessary documents.

APS may elect to schedule meetings or conference calls with each short-listed Respondent to review and clarify a Proposal. After the selection of the short-listed Proposals, APS will begin contract negotiations with such Respondent(s).

APS may select a final Respondent(s) based on the detailed evaluation of the short-listed Proposals. This selection will not automatically be based on the lowest price alternatives available amongst the Proposals. The price and non-price attributes described in part in this RFP solicitation document will be considered in their totality for each Proposal. APS will use its sole discretion, judgment and analyses in making the final selection(s) in the RFP Process. APS' objective is to select resources that have the potential to offer the maximum reliability and value, based on cost and non-cost attributes.

4. CONTRACTS and REGULATORY APPROVAL

4.1. General

The Respondent(s) whose Proposal is selected will be responsible for acquiring and/or verifying that they are in compliance with all necessary licenses, permits, certifications, reporting requirements and approvals required by federal, state and local government laws, regulations and policies, including if applicable, for the design, construction and operation of the project. In addition, the Respondent shall fully support the regulatory approval process associated with any potential acquisition or power supply arrangement.

Respondent shall be liable for all of its costs and APS shall not be responsible for any of Respondent's costs incurred to prepare, submit or negotiate its Proposal, a contract or any other related activity.

4.2. Contract Modifications

The contract format for this RFP will be based upon either (a) the Asset Purchase Agreement, or (b) for a PPA, the Proposed Edison Electric Institute ("EEI") Purchase Power Agreement, or (c) for a generating unit that is not yet fully commercially operational, the Unfinished Generating Facility Development Agreement, as provided in the Response Package. Although APS strongly prefers to use the foregoing documents provided with this RFP, Respondents may expressly identify and include proposed changes to those agreements in their Response Packages. Such proposed revisions will allow APS to assess in its evaluation process the significance and/or impact to any Proposal of the changes requested by Respondents.

4.3. Definitive Agreement

As soon as practicable after APS completes negotiations, APS expects the selected Respondent(s) to execute a definitive Asset Purchase Agreement or PPA or Unfinished Generating Facility Development Agreement, whichever is appropriate.

Failure of the Respondent(s) to promptly execute a definitive written agreement after notification of a winning bid will result in rejection of the Proposal.

4.4. Regulatory Approval Process

At APS' sole discretion, any final negotiated contract may be conditioned upon regulatory actions and/or approvals by regulatory authorities. All consents and approvals of governmental authorities required for the consummation of the contemplated transactions shall have terms and conditions acceptable to APS.

4.5. Collusion

By submitting a Proposal to APS in response to this RFP, the Respondent certifies that the Respondent has not divulged, discussed or compared its Proposal with other Respondents and has not colluded whatsoever with any other Respondent or parties with respect to this or other Proposals.

Arizona Public Service Company
2005 Request for Proposal for Long-Term Capacity Supply
Attachment 1 - 2007-2011 SUMMER SUPPLY AND DEMAND BALANCE

	2007	2008	2009	2010	2011
A. LOAD REQUIREMENTS					
1 MANAGED PEAK	7,169	7,445	7,736	7,990	8,231
2 ANNUAL LOAD GROWTH %	4.2	3.9	3.9	3.3	3.0
3 RESERVE REQUIREMENTS	978	1,019	1,062	1,100	1,135
4 TOTAL LOAD REQUIREMENTS	8,147	8,464	8,798	9,090	9,366
B. EXISTING GENERATION & PURCHASED POWER RESOURCES					
<u>EXISTING GENERATION RESOURCES</u>					
5 TOTAL AVAILABLE GENERATION	6,136	6,157	6,157	6,157	6,157
<u>PURCHASED POWER RESOURCES</u>					
6 SRP - FIRM	168	172	176	180	185
7 SRP - CONTINGENT	62	62	62	62	62
8 PACIFICORP DIV EXCH	480	480	480	480	480
9 TOTAL PURCHASES	710	714	718	722	727
10 TOTAL EXISTING RESOURCES	6,846	6,871	6,875	6,879	6,884
C. NEED: LOAD OVER/(UNDER) RESOURCES	1,300	1,593	1,924	2,211	2,483

Note: APS existing generation includes West Phoenix CC 4&5, Redhawk CC 1-2, Saguaro CT3 and Sundance CT5

April 25, 2005

Arizona Public Service Company
2005 Request for Proposal for Long-Term Capacity Supply
Attachment 2a - 2007 MONTHLY SUPPLY AND DEMAND BALANCE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. LOAD REQUIREMENTS												
1 MANAGED PEAK	4,281	4,178	3,911	4,491	5,850	6,339	7,169	7,169	6,551	5,071	4,036	4,428
2 RESERVE REQUIREMENTS	534	522	432	502	607	854	978	978	885	588	522	569
3 TOTAL LOAD REQUIREMENTS	4,815	4,700	4,344	4,992	6,457	7,193	8,147	8,147	7,436	5,659	4,558	4,996
B. EXISTING GENERATION & PURCHASED POWER RESOURCES												
<u>EXISTING GENERATION RESOURCES</u>												
4 TOTAL AVAILABLE GENERATION	5,753	5,831	5,345	5,338	6,062	6,136	6,136	6,136	6,136	5,811	5,846	5,946
<u>PURCHASED POWER RESOURCES</u>												
5 SRP - FIRM	310	310	310	310	310	168	168	168	168	168	168	168
6 SRP - CONTINGENT	62	62	62	62	62	62	62	62	62	62	62	62
7 PACIFICORP DIV EXCH	(480)	(480)	0	0	480	480	480	480	480	0	(480)	(480)
8 TOTAL PURCHASES	(108)	(108)	372	372	852	710	710	710	710	230	(250)	(250)
9 TOTAL EXISTING RESOURCES	5,645	5,723	5,717	5,710	6,914	6,846	6,846	6,846	6,846	6,041	5,596	5,696
C. NEED: LOAD OVER/(UNDER) RESOURCES												
	(830)	(1,023)	(1,374)	(718)	(457)	347	1,300	1,300	590	(382)	(1,038)	(700)

Note: APS existing generation includes West Phoenix CC 4&5, Redhawk CC 1-2, Saguaro CT3 and Sundance CT's

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Arizona Public Service Company
2005 Request for Proposal for Long-Term Capacity Supply
Attachment 2b - 2008 MONTHLY SUPPLY AND DEMAND BALANCE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. LOAD REQUIREMENTS												
1 MANAGED PEAK	4,448	4,256	4,065	4,665	6,075	6,587	7,445	7,445	6,807	5,267	4,192	4,597
2 RESERVE REQUIREMENTS	571	548	468	540	651	890	1,019	1,019	923	611	540	589
3 TOTAL LOAD REQUIREMENTS	5,019	4,804	4,532	5,204	6,727	7,477	8,464	8,464	7,730	5,878	4,732	5,185
B. EXISTING GENERATION & PURCHASED POWER RESOURCES												
<u>EXISTING GENERATION RESOURCES</u>												
4 TOTAL AVAILABLE GENERATION	6,021	5,561	5,339	5,552	6,025	6,157	6,157	6,157	6,157	5,696	6,230	6,330
<u>PURCHASED POWER RESOURCES</u>												
5 SRP - FIRM	168	168	168	168	168	172	172	172	172	172	172	172
6 SRP - CONTINGENT	62	62	62	62	62	62	62	62	62	62	62	62
7 PACIFICORP DIV EXCH	(480)	(480)	0	0	480	480	480	480	480	0	(480)	(480)
8 TOTAL PURCHASES	(250)	(250)	230	230	710	714	714	714	714	234	(246)	(246)
9 TOTAL EXISTING RESOURCES	5,771	5,311	5,569	5,782	6,735	6,871	6,871	6,871	6,871	5,930	5,984	6,084
C. NEED: LOAD OVER/(UNDER) RESOURCES												
	(751)	(507)	(1,037)	(578)	(8)	606	1,593	1,593	859	(52)	(1,252)	(899)

Note: APs existing generation includes West Phoenix CC 445, Redhawk CC 1-2, Saguaro CT3 and Sundance CTs

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Arizona Public Service Company
2005 Request for Proposal for Long-Term Capacity Supply
Attachment 2c - 2009 MONTHLY SUPPLY AND DEMAND BALANCE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. LOAD REQUIREMENTS												
1 MANAGED PEAK	4,618	4,506	4,220	4,842	6,307	6,838	7,736	7,736	7,071	5,468	4,352	4,767
2 RESERVE REQUIREMENTS	591	578	486	560	679	927	1,062	1,062	962	635	559	609
3 TOTAL LOAD REQUIREMENTS	5,210	5,083	4,705	5,402	6,986	7,766	8,798	8,798	8,033	6,103	4,910	5,376
B. EXISTING GENERATION & PURCHASED POWER RESOURCES												
<u>EXISTING GENERATION RESOURCES</u>												
4 TOTAL AVAILABLE GENERATION	5,995	5,917	5,572	5,546	6,195	6,157	6,157	6,157	6,157	5,561	5,708	5,832
<u>PURCHASED POWER RESOURCES</u>												
5 SRP - FIRM	172	172	172	172	172	176	176	176	176	176	176	176
6 SRP - CONTINGENT	62	62	62	62	62	62	62	62	62	62	62	62
7 PACIFICORP DIV EXCH	(480)	(480)	0	0	480	480	480	480	480	0	(480)	(480)
8 TOTAL PURCHASES	(246)	(246)	234	234	714	718	718	718	718	238	(242)	(242)
9 TOTAL EXISTING RESOURCES	5,749	5,671	5,806	5,780	6,909	6,875	6,875	6,875	6,875	5,799	5,466	5,590
C. NEED: LOAD OVER/(UNDER) RESOURCES												
	(539)	(588)	(1,100)	(377)	77	891	1,924	1,924	1,158	304	(556)	(214)

Note: APS existing generation includes West Phoenix CC 4&5, Redhawk CC 1&2, Saguaro CT3 and Sundance CTs

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Arizona Public Service Company
2005 Request for Proposal for Long-Term Capacity Supply
Attachment 2d - 2010 MONTHLY SUPPLY AND DEMAND BALANCE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. LOAD REQUIREMENTS												
1 MANAGED PEAK	4,771	4,653	4,357	4,999	6,512	7,061	7,990	7,990	7,302	5,645	4,492	4,921
2 RESERVE REQUIREMENTS	609	595	502	579	703	960	1,100	1,100	996	656	575	627
3 TOTAL LOAD REQUIREMENTS	5,380	5,248	4,859	5,577	7,215	8,021	9,090	9,090	8,299	6,301	5,067	5,548
B. EXISTING GENERATION & PURCHASED POWER RESOURCES												
4 TOTAL AVAILABLE GENERATION	5,861	5,806	5,285	5,443	6,025	6,157	6,157	6,157	6,157	5,806	6,120	6,120
PURCHASED POWER RESOURCES												
5 SRP - FIRM	176	176	176	176	176	180	180	180	180	180	180	180
6 SRP - CONTINGENT	62	62	62	62	62	62	62	62	62	62	62	62
7 PACIFICORP DIV EXCH	(480)	(480)	0	0	480	480	480	480	480	0	(480)	(480)
8 TOTAL PURCHASES	(242)	(242)	238	238	718	722	722	722	722	242	(238)	(238)
9 TOTAL EXISTING RESOURCES	5,619	5,564	5,523	5,681	6,743	6,879	6,879	6,879	6,879	6,048	5,882	5,882
C. NEED: LOAD OVER/(UNDER) RESOURCES	(239)	(316)	(664)	(104)	472	1,142	2,211	2,211	1,420	253	(815)	(334)

Note: APS existing generation includes West Phoenix CC 48.5, Redhawk CC 1-2, Saguaro CT3 and Sundance CTs

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2005 Request for Proposal for Long-Term Capacity Supply
Attachment 2e - 2011 MONTHLY SUPPLY AND DEMAND BALANCE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A. LOAD REQUIREMENTS												
1 MANAGED PEAK	4,917	4,795	4,490	5,150	6,709	7,276	8,231	8,231	7,526	5,817	4,629	5,072
2 RESERVE REQUIREMENTS	626	611	517	596	726	992	1,135	1,135	1,029	676	591	644
3 TOTAL LOAD REQUIREMENTS	5,543	5,407	5,008	5,746	7,435	8,268	9,366	9,366	8,555	6,493	5,219	5,716
B. EXISTING GENERATION & PURCHASED POWER RESOURCES												
EXISTING GENERATION RESOURCES												
4 TOTAL AVAILABLE GENERATION	6,330	5,835	5,378	5,554	6,084	6,157	6,157	6,157	6,157	5,696	6,120	6,120
PURCHASED POWER RESOURCES												
5 SRP - FIRM	180	180	180	180	180	185	185	185	185	185	185	185
6 SRP - CONTINGENT	62	62	62	62	62	62	62	62	62	62	62	62
7 PACIFICORP DIV EXCH	(480)	(480)	0	0	480	480	480	480	480	0	(480)	(480)
8 TOTAL PURCHASES	(238)	(238)	242	242	722	727	727	727	727	247	(233)	(233)
9 TOTAL EXISTING RESOURCES	6,092	5,597	5,620	5,796	6,806	6,884	6,884	6,884	6,884	5,943	5,887	5,887
C. NEED: LOAD OVER/(UNDER) RESOURCES												
	(549)	(190)	(612)	(50)	629	1,384	2,483	2,483	1,671	550	(667)	(171)

Note: APS existing generation includes West Phoenix CC 4&5, Redhawk CC 1-2, Saguaro CT3 and Sundance CTs

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Arizona Public Service Company
2005 Request for Proposal for Long-Term Capacity Supply
ATTACHMENT 3a & 3b - ENERGY BALANCE WITHOUT ECONOMIC PURCHASES (GWHs)

2007	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Baseload Coal + Nuclear	1,965	1,698	1,782	1,585	1,912	1,933	2,010	2,006	1,922	1,688	1,651	1,877	22,029
Seasonal Exchanges	0	0	0	0	78	138	143	143	69	0	0	0	571
Combined Cycles	593	549	465	694	737	897	1,126	1,160	996	788	668	785	9,459
LT Purchases	31	40	23	47	52	51	83	87	61	43	28	35	581
Steam + Simple Cycle CTs	15	16	12	33	38	98	229	260	115	66	28	48	958
Reliability Needs	0	0	0	0	0	1	16	18	3	1	0	0	39
Total	2,604	2,302	2,282	2,359	2,818	3,119	3,607	3,674	3,166	2,586	2,375	2,744	33,637

2008	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Baseload Coal + Nuclear	1,961	1,676	1,762	1,621	1,878	1,944	2,032	2,024	1,962	1,731	1,816	2,012	22,421
Seasonal Exchanges	0	0	0	0	78	138	143	143	69	0	0	0	571
Combined Cycles	698	667	563	762	844	966	1,183	1,233	1,048	767	599	797	10,126
LT Purchases	27	29	20	40	49	61	93	96	72	60	30	36	614
Steam + Simple Cycle CTs	21	25	15	46	85	147	288	308	150	121	24	30	1,261
Reliability Needs	0	0	0	0	2	5	30	30	7	3	0	0	77
Total	2,706	2,398	2,360	2,469	2,936	3,262	3,769	3,835	3,309	2,682	2,470	2,875	35,070

Arizona Public Service Company
2005 Request for Proposal for Long-Term Capacity Supply
ATTACHMENT 3c & 3d - ENERGY BALANCE WITHOUT ECONOMIC PURCHASES (GWhs)

2009	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Baseload Coal + Nuclear	1,990	1,699	1,762	1,562	1,928	1,962	2,027	2,031	1,954	1,735	1,857	1,995	22,503
Seasonal Exchanges	0	0	0	0	78	138	143	143	69	0	0	0	571
Combined Cycles	736	678	650	904	882	1,061	1,239	1,260	1,089	863	629	878	10,867
LT Purchases	39	40	25	42	54	67	101	106	83	57	31	42	688
Steam + Simple Cycle CTS	35	62	15	52	103	150	347	378	221	119	26	51	1,560
Reliability Needs	0	0	0	0	2	5	55	64	16	2	0	0	145
Total	2,801	2,479	2,452	2,560	3,048	3,384	3,911	3,981	3,433	2,776	2,543	2,966	36,334

2010	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Baseload Coal + Nuclear	1,974	1,676	1,812	1,672	1,859	1,968	2,028	2,041	1,958	1,749	1,860	2,039	22,635
Seasonal Exchanges	0	0	0	0	78	138	143	143	69	0	0	0	571
Combined Cycles	841	785	667	832	976	1,099	1,271	1,286	1,138	908	691	905	11,398
LT Purchases	38	37	32	58	70	78	111	115	94	66	34	51	784
Steam + Simple Cycle CTS	39	62	25	84	159	204	402	430	271	145	38	59	1,916
Reliability Needs	0	0	0	0	10	19	94	112	27	6	0	0	271
Total	2,892	2,560	2,535	2,645	3,152	3,507	4,048	4,127	3,557	2,875	2,622	3,053	37,574

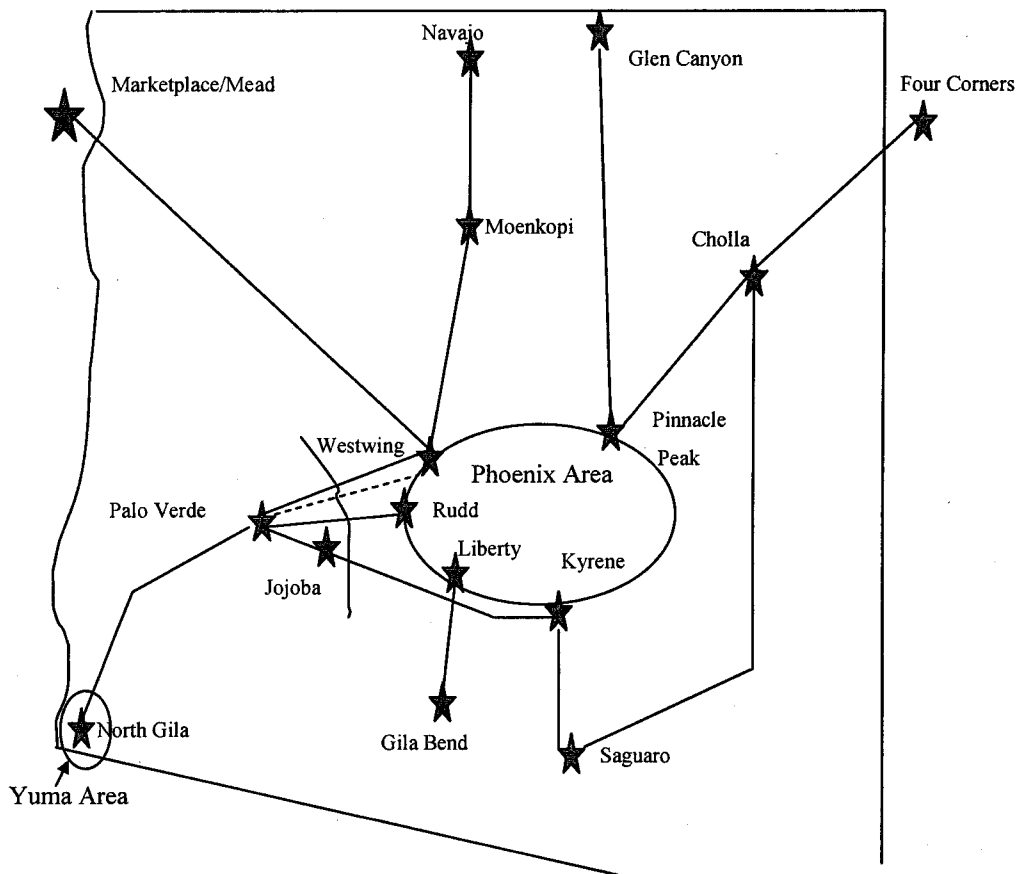
Arizona Public Service Company
2005 Request for Proposal for Long-Term Capacity Supply
ATTACHMENT 3e - ENERGY BALANCE WITHOUT ECONOMIC PURCHASES (GWHs)

2011	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Baseload Coal + Nuclear	2,026	1,728	1,834	1,596	1,925	1,972	2,045	2,040	1,961	1,719	1,878	2,039	22,763
Seasonal Exchanges	0	0	0	0	78	138	143	143	69	0	0	0	571
Combined Cycles	867	812	726	958	987	1,132	1,294	1,307	1,181	916	758	959	11,897
LT Purchases	44	40	35	60	76	87	119	124	103	78	34	54	853
Steam + Simple Cycle CTs	47	64	26	119	185	254	444	477	314	231	26	92	2,278
Reliability Needs	0	0	0	1	11	37	134	171	45	23	0	0	422
Total	2,985	2,644	2,621	2,734	3,262	3,620	4,179	4,261	3,673	2,967	2,695	3,145	38,785

ATTACHMENT 4

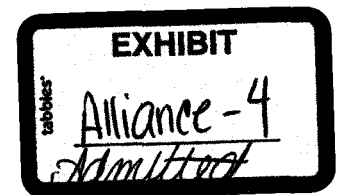
2007/2008 APS Transmission System

(Primary Delivery Points and High Voltage Interconnections)



Note: It is the Respondent's responsibility to acquire transmission data through the Westtrans Oasis site.

2007/08 Future Line -----



The Direct Case Testimony of
R. Mark Clements
Docket No. E-01345A-06-0464

I. INTRODUCTION AND OVERVIEW

Q.1 What is your full name and business address?

A.1 My name is R. Mark Clements. My business address is E3 Consulting, LLC, 3333 S. Bannock St., Suite 500, Englewood, CO 80110

Q.2 Please summarize your educational background.

A.2 I have Bachelor of Science degrees in Mechanical Engineering (University of Arizona) and in Biology (University of Colorado). I also have a Master of Science degree in Electrical Engineering from the University of Colorado.

Q.3 Please provide a short summary of your past and present work experience.

A.3 I am an Executive Director with E3 Consulting, LLC. E3 Consulting provides due diligence, independent engineering, general consulting, management consulting, and asset appraisal services for clients in the energy industry. These clients include public and investor-owned electric utilities, gas pipeline companies, Independent Power Producers ("IPPs"), renewable energy developers, and the banks, equity funds and institutional investors that wish to invest in, or divest from the assets in these businesses.

At E3, a large portion of my work involves evaluating transmission lines, DC transmission or converter facilities. In connection with new unit construction or asset acquisitions I evaluate transfer path ratings and interconnection issues. I also perform modeling of generator assets and follow market and RTO issues in ERCOT, PJM, ISO New England and the Midwest ISO.

1 Prior to joining E3 Consulting, I had been employed by Public Service Company of
2 Colorado ("PSCo") and New Century Energies where I held a variety of jobs in System
3 Planning, System Operations, Economics and Forecasting, and Engineering. While at
4 PSCo, I served as Manager of System Planning in which I was responsible for both
5 generation expansion planning and transmission planning. I also have held consulting
6 positions at two other consulting firms, Stone & Webster Management Consultants, Inc.
7 ("Stone and Webster") and Energy and Resources Consulting Group ("ERG"). At Stone
8 & Webster most of my assignments concerned generation expansion planning for
9 utilities. At ERG I provided consulting experience in RTO formation and transmission
10 issues, including ancillary services and pricing. For a few years I also was a consultant to
11 and then accepted employment with M2M DataCorp, a firm that was (among other
12 things) building an Internet based SCADA system for use by utilities and oil companies.
13

14 **Q.4 What is the purpose of your testimony?**

15 A.4 I have been asked by Southwestern Power Group II, L.L.C., Bowie Power Station,
16 L.L.C., Mesquite Power, L.L.C. and the Arizona Competitive Power Alliance,
17 (collectively, the "Merchant Intervenor") to assess whether Arizona Public Service
18 Company ("APS") has complied with Decision No. 67744 ("Decision") issued by the
19 Arizona Corporation Commission ("Commission") on April 7, 2005 in Docket No. E-
20 01345A-03-0437 by filing its Application for Authorization to Acquire Power Plant in
21 this matter. The Decision approved, with modification, an August 18, 2004 Settlement
22 Agreement ("Settlement") entered into by 22 parties, including APS, the Merchant
23 Intervenor and the Commission's Staff.
24

25 I will focus my review and analysis on the "Competitive Procurement of Power" sections
26 of the Settlement and the Decision, and whether or not APS' Application and its prior
27 conduct during the course of the Yuma RFP satisfy the requirements of the Settlement
28 and the Decision.
29

30 **Q.5 What is your understanding of why APS issued and how it conducted the Yuma**
31 **RFP?**

1 A.5 My understanding is that the Yuma RFP was designed to solicit proposals from the
2 competitive wholesale power market to meet certain power resource requirements which
3 APS has identified for the Yuma area. The prepared direct case testimony of APS
4 witness Patrick Dinkel provides some background in this regard, as well as a summary
5 description of how APS conducted the Yuma RFP. However, Mr. Dinkel's description
6 appears to be incomplete.

7
8 More specifically, it is my understanding that APS received a number of proposals on
9 July 15, 2005 in response to a May 2005 RFP. The language of that RFP expressly
10 excluded the Yucca site from eligibility for inclusion in bid proposals responding to that
11 RFP. Mr. Dinkel's testimony makes no reference at all to these proposals. Subsequently,
12 APS issued the September 2005 RFP, in response to which it received 25 bids, according
13 to Mr. Dinkel. Nowhere does Mr. Dinkel address in his testimony whether the
14 submission of the July 15, 2005 proposals precipitated a possible change in APS'
15 procurement assumptions, criteria or objectives during mid-2005; and, if so, why.

16
17 In addition, nowhere in either its July 13, 2006 Application or Mr. Dinkel's testimony
18 does APS account for the passage of more than one (1) year between May 2005 when it
19 commenced an RFP process, which included the projected needs for the Yuma area, and
20 July 2006, when it filed its Application in this case.

21
22 **Q.6 Please summarize your principal findings.**

23 A.6 Based on my review of the Settlement, Decision, and responses to the Merchant
24 Intervenor's First Set of Data Requests provided to date by APS, I have concluded that:

25
26 1. APS has not complied with the Settlement and the Decision in the following
27 important respects:

28 a. APS has not demonstrated that the Yuma RFP was unsuccessful as
29 required by Paragraph 75(c) of the Settlement, and in fact, its July 13,
30 2006 Application and the prepared Direct Testimony of APS witness
31 Patrick Dinkel suggest that the RFP was successful;

- 1 b. The Settlement and the Decision do not provide for nor contemplate the
2 “direct build” option that APS is pursuing;
- 3 c. APS’ apparent reliance on Paragraph 76 of the Settlement to justify its
4 “direct build” option is not justified; and
- 5 d. APS’ claim that its conduct of the Yuma RFP is consistent with the
6 Settlement and the Decision is not supported by the facts.
- 7
- 8 2. APS has attempted to circumvent the clear intent and requirements of the
9 Settlement and the Decision by proposing a “direct build” option outside of the
10 RFP process. APS has carefully avoided using the term “bid” to characterize its
11 “direct build” option, but the “direct build” option is for all intent and purposes
12 just that - a faux “bid” that is intended to compete with the merchant bids received
13 in the Yuma RFP. Because of the manner in which APS uses its “direct build”
14 proposal as a basis of comparison to the bids received in the Yuma RFP, my
15 testimony treats the “direct build” proposal as an additional “bid,” into that RFP.
- 16
- 17 3. The APS “direct build” option is a relatively under-formulated proposal, which
18 does not satisfy even the threshold criteria of its own RFP. As a result, efforts by
19 APS to compare the “direct build” option to the comprehensive bids submitted by
20 a number of members of the merchant generator community or IPPs in response
21 to the Yuma RFP are meaningless. In particular APS has not yet negotiated
22 contracts with key vendors that would help clarify how its “direct build” option
23 would address construction and operating risks - in stark contrast to the
24 requirements imposed on bidders that responded to the RFP who were required to
25 specifically account for those risks or face having their bid rejected.
- 26
- 27 4. APS has created an administrative burden on the Commission and all parties by
28 submitting a premature and unsupported Application. APS was obligated under
29 the Settlement to request authority to pursue a “self-build” option, which the
30 Decision defined to include purchases of generating assets that were the result of
31 a competitive solicitation process. However, the Application does not seek

1 approval to execute a contract to acquire an asset from the winning bidder.
2 Rather, it seeks the Commission's blessing to compare the winning bid to a new
3 APS "direct build" alternative. In addition to circumventing the Settlement and
4 the Decision, this approach may increase the costs of all options in a tightening
5 power plant construction market and thus risk the customer benefits that have
6 been achieved through the RFP process.

7
8 **Q.7 Please summarize your recommendations.**

9 A.7 The Commission should direct APS to execute a contract on an expedited timeframe with
10 the winning third-party bidder. This would be (i) consistent with what has been a
11 successful RFP process for the Yuma area, (ii) consistent with what is contemplated by
12 the Settlement and the Decision, and (iii) will preserve the integrity of competitive
13 bidding processes in Arizona.

14
15 In addition, the Commission should take this opportunity to confirm that the APS effort
16 to advance a "direct build" option within the context of an ongoing RFP is contrary to the
17 Settlement and the Decision.

18
19 The "direct build" option should be available for consideration only when and after it can
20 be conclusively demonstrated that a properly conducted competitive RFP has in fact
21 failed to meet APS' power requirements. Such a failure has not been demonstrated in
22 this case.

23
24 **Q.8 How is the balance of your testimony organized?**

25 A.8 Following this introductory section, I have organized my testimony into three additional
26 sections. I review issues related to APS' compliance with the Settlement and the
27 Decision in Section II. The comparability of the APS "direct build" option to the bids
28 received in response to the Yuma RFP is discussed in Section III. Finally, I provide
29 concluding remarks in Section IV.

1 **II. THE SETTLEMENT AND THE DECISION**

2
3 **Q.9 What aspects of the Settlement and the Decision will you be focusing on?**

4 A.9 I will focus on Section IX of the Settlement entitled "Competitive Procurement of
5 Power" and comprising paragraphs 74-80. This part of the Settlement was addressed in
6 Section J of the Decision.

7
8 **Q.10 Has APS complied with the Settlement and the Decision?**

9 A.10 In my view, APS has not complied with either the letter or intent of the Settlement, as
10 subsequently modified by the Decision.

11
12 **Q.11 Why do you believe that APS has not complied with the letter or "intent" of the**
13 **Settlement and the Decision?**

14 A.11 The Settlement and the Decision indicate that APS will not pursue a "self-build" option,
15 except under the limited circumstances that have been spelled out in the Settlement.
16 These circumstances include a failure of the competitive wholesale market to meet
17 capacity needs of APS, and other situations which are not relevant to this case. As I will
18 note later in my testimony, APS has indicated that the Yuma solicitation was successful.
19 What APS refers to at its "direct build" proposal is contrary to the intent of the
20 Settlement, even setting aside the numerous process issues that I will discuss.

21
22 Among these process issues, Paragraph 78(b) of the Settlement clearly indicates that
23 affiliates are not allowed to participate in competitive solicitations for long-term
24 resources without the appointment by the Commission or Staff of an independent
25 monitor. The Commission explicitly noted this provision in its Decision approving the
26 Settlement. The participation of APS in this solicitation - through the back door no less -
27 threatens the viability of future competitive RFP's to meet APS' rapidly growing capacity
28 needs.

29
30 **Q.12 Was a "direct build" option contemplated by the Settlement and the Decision as a**
31 **competitive alternative to bids submitted in response to an RFP?**

1 A.12 No. Despite that fact, APS witness Dinkel asserts that the "direct build" option is
2 consistent with the Settlement Order:

3
4 "To ensure the acquisition of the most economic resource for APS's customers,
5 and consistent with the Settlement Order, APS also sought cost estimates directly
6 from vendors and contractors in the supplier market for equipment and contract
7 services needed to construct a new generating facility. For ease of reference, I
8 will refer to this throughout my testimony as the "direct build" option." [Dinkel
9 direct testimony at page 2, line 24- page 3, line 3] [Emphasis added]
10

11 However, Mr. Dinkel offers no further support for his assertion, and neither the language
12 of the Settlement or the Decision support his statement. Rather, he attempts to suggest
13 two rationale to justify APS' conduct.
14

15 "First, it allowed the Company to compare prices received in the RFP against
16 actual market prices for the equipment and contract services needed to construct
17 the facility. Second, it allowed the Company to consider whether directly
18 contracting for construction would be a more economic alternative compared to
19 purchasing the plant on a turnkey basis from a third party developer." [Dinkel
20 direct testimony at page 3, lines 3- 8]
21

22 **Q.13 Please comment on Mr. Dinkel's explanation.**

23 A.13 The first "justification" would have some merit if the response to the Yuma RFP had
24 been limited and if APS had provided evidence that the solicitation had not been
25 successful. However, the competitiveness of the Yuma RFP does not appear to be an
26 issue, since APS received 25 bids from twelve (12) different entities, and has indicated
27 that it was satisfied with the competitiveness of the RFP. Moreover, there is no
28 indication in Mr. Dinkel's testimony that bids received in the RFP were inconsistent with
29 the market information obtained by APS.
30

31 There is simply no justification under the terms of the Settlement and the Decision for the
32 second "justification" offered by Mr. Dinkel. Subjecting the winning bids to a second
33 competition by a utility "direct build" option is neither contemplated by nor consistent
34 with the Settlement and Decision. Rather, it is equivalent to providing APS with the right
35 to match the best offer after the competitive process has concluded. In fact, it effectively

1 guts the moratorium provisions of the Settlement and would severely discourage, if not
2 effectively preclude, third-parties from the competitive wholesale market from
3 participating in future RFPs.
4

5 **Q.14 Assuming, solely for the purposes of discussion, that the Settlement and the Decision**
6 **would allow APS to independently develop and consider its “direct build” option as**
7 **a bid, in competition with bids submitted in response to the Yuma RFP, did APS**
8 **adhere to and apply to itself the same requirements it imposed on other bidders?**

9 A.14 No, based upon my review of the information APS has provided thus far.
10

11 More specifically, the APS “direct build” option falls far short of a complying bid. First,
12 it does not appear to have been submitted on a timely basis. Second, it fails to meet the
13 threshold criteria established by APS in the Yuma RFP for a complying bid. Third, it
14 remains to this day an incomplete proposal, inasmuch as it fails to address whether APS
15 also will be assuming construction cost and performance risk as was required of the RFP
16 respondents. I will discuss some of these issues in more detail in the next section of my
17 testimony.
18

19 **Q.15 Did APS comply with the “spirit” of the Settlement and the Decision?**

20 A.15 No. As I have already discussed, a “direct build” option intended to compete against
21 bidders in a successful competitive solicitation process is not contemplated by the
22 Settlement and the Decision.
23

24 **Q.16 Did APS comply with each of the requirements of Paragraph 75 of the Settlement?**

25 A.16 No. APS did comply with Paragraphs 75(a) and 75(b). However, Paragraph 75(c)
26 requires that APS explain why a competitive solicitation has been unsuccessful, in whole
27 or in part, in meeting the power requirements in question. APS has provided no such
28 explanation. In fact, Mr. Dinkel indicates that the Yuma RFP competitive solicitation
29 was successful:
30

31 “APS’s RFP resulted in 25 proposals from the competitive wholesale market,

1 including both long-term PPAs and asset purchase proposals from third party
2 developers. Based on both the quantity and quality of the proposals received, it is
3 apparent that the RFP and competitive procurement process provided APS with
4 an adequate basis for evaluating the economics of the market alternatives
5 proposed for meeting the Yuma resource requirements." [Dinkel direct testimony
6 at page 6, lines 5-11] [Emphasis added]
7

8 This indicates that the market response was both abundant and highly competitive,
9 creating downward price pressure on the responding entities. Under these circumstances,
10 even if the "direct build" option is analogized to a "self-build" proposal, as defined in the
11 Settlement and the Decision, it is apparent that APS cannot satisfy the requirement of
12 Paragraph 75(c). More specifically, APS cannot say, and has not said, that the Yuma
13 RFP was unsuccessful in meeting its needs.
14

15 **Q.17 Are there any other requirements of Paragraph 75 that APS has not complied with?**

16 A.17 Yes. With respect to Paragraph 75(e), APS represents it has compared the life-cycle
17 costs of asset purchase options with other options received in response to its Yuma RFP.
18 However, any purported life-cycle cost comparison of the RFP bids with the APS "direct
19 build" option is meaningless as of this juncture, given the incomplete nature of the "direct
20 build" option.
21

22 **Q.18 What about Paragraph 75(d)?**

23 A.18 It is not possible for APS to comply with Paragraph 75(d) as of this point in time, because
24 it is my understanding that the Commission's Staff has not as yet conducted the
25 workshops that are described in Paragraph 79 and contemplated by Paragraph 75(d).
26

27 **Q.19 Does APS cite any other provision of the Settlement in support of its Application?**

28 A.19 Yes. At one point in Mr. Dinkel's testimony, he refers to Paragraph 76. Paragraph 76
29 states that:
30

31 "Nothing in this section shall be construed as relieving APS of its existing
32 obligation to prudently acquire generating resources, including but not limited to
33 seeking the above authorization to self-build a generating resource or resources
34 prior to 2015." [Settlement at page 17]

1
2 Mr. Dinkel believes that this paragraph is relevant because:

3
4 "...APS must seek to obtain the most economic resources for its customers and
5 consider all reasonable alternatives for supplying resources, including any self-
6 build options that may be in the best interest of its customers." [Dinkel direct
7 testimony at page 7, lines 2-5]
8

9 **Q.20 Does this paragraph provide support for development of an alternative "direct**
10 **build" option?**

11 A.20 No. It is certainly important that APS endeavor to prudently acquire generating
12 resources. However, the Yuma RFP was a successful competitive solicitation and
13 resulted in, at a minimum, one prudent third-party option to meet APS' long-term
14 capacity needs within the Yuma load pocket.
15

16 A literal reading of the explanation provided by Mr. Dinkel would suggest that APS is
17 obligated to pursue a "direct build" strategy in every RFP, without regard to whether or
18 not the RFP process was successful. This approach would effectively make a mockery of
19 the "moratorium" and cannot have been the intent of either the Settlement or the
20 Decision.
21

22 **Q.21 Do you have any other concerns with respect to the process that APS has used to**
23 **compare its "direct build" option with the bids submitted in response to the Yuma**
24 **RFP?**

25 A.21 Yes, I have four additional concerns.
26

27 First, the APS option was not submitted as part of a process with the safeguards against
28 self-bidding identified in Paragraph 78(b) of the Settlement.
29

30 Second, it appears that APS did not create a separation or "Chinese Wall" between its bid
31 evaluation team and that at least some members of that team were also a part of the group
32 that developed what has become its "direct build" option.

1
2 Third, APS failed to keep more than one short-listed bid alive during the negotiation
3 process. This has the potential to reduce the value to APS customers that might
4 otherwise have been realized in the final price received from the winning bidder. The
5 existence of negotiations with several competitors creates a market pressure for each to
6 offer APS its best price and terms and conditions.

7
8 Fourth, APS' protracted conduct of this process ironically may result in much higher
9 costs to APS customers than would be the case if APS had accepted the results of the
10 successful Yuma RFP. The market is not standing still and project development market
11 conditions, including the costs of materials and EPC contractors, are increasingly less
12 favorable than they were on October 14, 2005 when the RFP proposals were submitted.

13
14 **Q.22 What are the likely consequences if APS is allowed to conduct its future power**
15 **resource procurements as it has in this case?**

16 A.22 Bidders will be reluctant (if not refuse) to devote time and money to responding to future
17 RFPs. In addition to numerous fairness issues, the current process has already been
18 unduly protracted and also subject to unnecessary procedural controversy, because of the
19 manner in which APS has sought Commission approval of its actions. These are not the
20 qualities that attract RFP respondents. Fundamentally, the ability of APS to conduct an
21 RFP in such a way that it can take the RFP responses and use them to construct its own
22 alternative "direct build" proposal, and then declare that proposal to be the best outcome,
23 completely eviscerates the benefits that the merchant community parties negotiated in the
24 Settlement. The "self-build" moratorium would mean nothing in such circumstances.

25
26 Alternatively, future bidders could add a risk premium to their bids to cover such
27 developments, which would have the effect of distorting what the competitive market
28 could and would otherwise offer. Surely, that is also a circumstance not contemplated by
29 either the Settlement or the Decision and could cause higher prices to consumers.

1 **III. THE APS "BID"**

2
3 **Q.23 You've previously characterized the APS "bid" as being "incomplete". Please**
4 **explain why.**

5 A.23 The APS "direct build" bid has certain attributes of a bid but lacks other necessary
6 aspects. As a consequence, it is very problematic to compare the differences between the
7 "incomplete" APS bid in any meaningful way with the "complete" bids submitted by
8 third parties responding to the Yuma RFP.

9
10 **Q.24 Please identify the problems associated with comparing the APS bid to the proposals**
11 **received in the Yuma RFP.**

12 A.24 As previously noted, there are several. First, the APS bid wasn't timely submitted with
13 the other proposals. Second, it does not satisfy other threshold requirements spelled out
14 in the Yuma RFP. Third, it does not appear to have been developed independent of bids
15 received from respondents to the RFP. Fourth, APS has not described how risks will be
16 apportioned to its "direct build" bid, as contrasted with the risk allocation that was
17 required of RFP respondents.

18
19 **Q.25 What is problematic about the fact that APS did not timely submit its own**
20 **"proposal" or "bid?"**

21 A.25 Twenty-five (25) binding proposals were submitted on October 14, 2005 which
22 culminated (to that point) a lengthy process by responding organizations to get binding
23 terms from vendors and contractors. In comparison, we do not know precisely when APS
24 developed the costs contained in its "direct build" option but thus far it appears to have
25 been after APS reviewed the third-party bids.

26
27 **Q.26 Is there any evidence that the RFP respondents' proposals were based upon binding**
28 **or firm estimates of cost?**

29 A.26 Yes. The respondents understood, based on Section 2.8.2 of the Yuma RFP, that they
30 were committed to the bids that were submitted on October 14, 2005:

1 "All Proposals must expressly confirm that the pricing and terms and conditions
2 of the Proposal will be binding and held open in the manner described in Section
3 2.8.3. APS will not accept late Proposals delivered by e-mail, FAX or other
4 electronic means. Only sealed proposals will be accepted." [Emphasis in the
5 original]
6

7 Further, at section 2.8.3, the RFP indicated that:
8

9 "All Proposal terms, conditions and pricing are binding through the completion of
10 the selection process, currently planned for the close of business (5:00 p.m. MST)
11 on January 16, 2006. Any accepted Proposal will be binding in accordance with
12 the executed definitive agreement (see Section 4.3), including through the
13 Regulatory Approval Process described in Section 4.4." [Emphasis in the
14 original]
15

16 Finally, in Section 4.3:
17

18 "As soon as practicable after APS completes negotiation, APS expects the
19 selected Respondent(s) to execute a definitive Asset Purchase Agreement, PPA or
20 Unfinished Generating Facility Development Agreement, whichever is
21 appropriate. Failure of the Respondent(s) to promptly execute a definitive written
22 agreement after notification of a winning bid will result in rejection of the
23 Proposal." [Emphasis Added]
24

25 **Q.27 How would you compare these requirements to submit firm costs to those**
26 **"requirements" APS placed upon itself in connection with the "direct build" option?**

27 **A.27** They do not allow an apples-to-apples comparison of the APS "direct build" option to the
28 RFP bids. The following statement from the Application indicates that APS has not
29 developed a binding estimate of costs comparable to those cost estimates the RFP
30 respondents provided
31

32 "...costs to construct the facility are subject to significant movement prior to
33 finalizing agreements and cannot be fixed until APS is prepared to enter into
34 binding commitments." [page 6]
35

36 **Q.28 Do you believe that is unfair to and distortive of the Commission's consideration of**
37 **the APS proposal?**

1 A.28 Yes. Because APS has allowed itself the ability to keep final pricing and costs open up
2 until the point where it is ready to execute a contract, APS will have the opportunity to
3 re-price its proposal, and the Commission must therefore make a decision on a proposal
4 that is not fixed or final.

5
6 **Q.29 Were other Yuma RFP terms comparable to the terms that were applied to the APS**
7 **“direct build” option?**

8 A.29 No. I note that, in the Testimony of Mr. Dinkel and in its Application, APS has never
9 used the term proposal or bid to describe what it calls its option or alternative. However,
10 as I stated in the beginning of my testimony, APS has offered up the proposal in
11 “competition” with the bids it received in the Yuma RFP. Based on my review of
12 materials that have been provided to date, it does not appear that APS submitted a formal
13 bid to an APS evaluation team, or that it completed and registered a complete proposal
14 package with anyone in order to document that its proposal is comparable in any
15 meaningful way with the complete and registered third-party bids that were received.

16
17 For example, APS has not shown that it had a written itemization of the costs of
18 mitigating risks expressly including replacement power costs and related penalty fees.
19 Yet Section 2.1 of the RFP states:

20
21 “Failure to provide all the information requested in the RFP process or failure to
22 demonstrate that the Proposal satisfies all of the APS requirements will be
23 grounds for disqualification.” [Emphasis in the original]
24

25 **Q.30 Why are these differences problematic?**

26 A.30 The problem here is that APS may have developed its costs over time, and after the
27 October 14, 2005 bidding deadline. APS may not consider any of these “comparability”
28 issues as significant, and yet if APS were to be a Respondent in some other utility’s RFP
29 under the same scenario, I believe that APS would complain about the equity of that
30 process. The fact is that appearances are important to the integrity of any RFP process.
31 Surely, both the Commission and APS should strive for a fair and objective RFP, and I
32 feel that APS missed an opportunity to achieve that goal with the Yuma RFP. In that

1 regard, it appears that at least some personnel from APS who were involved in the review
2 and analysis of merchant bids also participated in the post-RFP "direct build" proposal
3 developed by APS, as evidenced by the fact that the best RFP responses and the APS
4 "direct build" option use identical numbers in APS' detailed revenue requirements
5 analysis
6

7 **Q.31 Do you know how APS treated the risks associated with the failure to attain**
8 **Commercial Operation as between itself and Respondents?**

9 A.31 Section 3.16 of the Yuma RFP states:
10

11 "Respondent must provide APS with a full financial guarantee, including
12 performance bonds and/or letters of credit, up to the level of product
13 commitments and in an amount and at a level determined by APS in its sole
14 discretion, expressly including replacement power costs and any related penalty
15 fees, in the event the generating unit does not become commercially operational
16 as scheduled."
17

18 The RFP respondents are quoting fixed prices (either through a PPA or via an option for
19 APS to purchase the completed asset) to develop, permit, design, engineer, construct,
20 finance and start-up a specific generation project based on a date certain. The RFP
21 respondents are accepting numerous risks that they may experience in meeting their
22 contractual obligations to APS. These include such items as equipment, labor and
23 materials costing more than anticipated, delays in or failure to obtaining permits, failure
24 of various pieces of equipment to perform as expected, delays in starting up the plant on
25 time and delays in achieving the expected performance. If the successful RFP respondent
26 fails to perform per the contract, it will incur penalties and have to pay liquidated
27 damages to APS to compensate APS for its opportunity losses.
28

29 On the other hand, it is not at all clear under the "direct-build" option what happens if the
30 same problems or unforeseen events arise. APS has not provided any information that
31 answers the question "who pays?" when the same unexpected events, delays and/or
32 equipment performance problems occur if the "direct-build" option was undertaken. In
33 general, a "direct-build" option means that APS will be bearing these risks on its balance

1 sheet, which means they are being born by ratepayers and shareholders. APS may be
2 able to protect itself from some of these risks through contracts (e.g., a turnkey
3 construction contract with a creditworthy and experienced contractor), but it cannot
4 protect itself from all the risks in the same way it can through a third-party PPA or option
5 to purchase a completed facility. For example, APS cannot protect itself by paying itself
6 liquidated damages because it was unable to obtain the permits in time. This is why I
7 believe that APS is not comparing apples to apples when it evaluates the RFP
8 respondents' proposals against its own direct-build option.

9
10 **Q.32 Were there other factors that should have been evaluated that may not have been**
11 **evaluated by APS?**

12 A.32 Yes. It is my understanding that APS received a number of proposals to locate
13 generation at sites other than Yucca within the Yuma load pocket. Some of the
14 respondents to the RFP believe these non-Yucca locations appear to represent better
15 locations within the Yuma transmission system from the perspectives of cost, electrical
16 interconnection, power flow, and reliability to the area adjacent to the proposed site.
17 These alternative sites may have less expensive transmission capital costs or may delay
18 the need for future transmission investment which savings could be credited as benefits in
19 a NPV cost analysis. Likewise, there may be clear savings in transmission capacity and
20 energy losses, and to the extent, if at all, that these savings are clear and definable, it
21 would be proper to acknowledge them in the alternatives NPV analysis. It is not possible
22 to ascertain whether these factors were considered by APS, based upon the documents
23 provided by it to date. Thus, the Merchant Intervenor has served additional data
24 requests on APS, which include a request for information of this nature.

25
26 **Q.33 Page 4, paragraph 2 of the RFP states:**

27
28 "APS will evaluate all qualified Proposals from this RFP...against an internally
29 estimated cost of new-build alternatives at the Yucca site in determining the
30 appropriate purchase and/or acquisitions for APS' future Yuma reliability and
31 energy needs." [Emphasis added]
32

1 **Do you believe this statement gave recipients of the Yuma RFP any advance notice**
2 **or awareness that APS was contemplating the “direct build” option that it is now**
3 **pursuing?**

4 A.33 No, I do not. I believe that it provided fair notice that APS would be evaluating the bids
5 against market information to evaluate their competitiveness. Had there been an
6 awareness that APS was going to present its own post-RFP alternative, I believe that
7 merchants would have questioned the sincerity of APS and the response would have been
8 much less robust and competitive than what Mr. Dinkel described.

9
10 Moreover, if a “direct build” option is under consideration from the outset, fundamental
11 fairness alone requires that the utility conducting the competitive procurement appoint or
12 establish an independent party or function to review and evaluate all proposals under
13 consideration. APS failed to do that.

16 **IV. CONCLUSIONS**

17
18 **Q.34 Please summarize your major findings.**

19 A.34 I have been asked by the Merchant Intervenors to examine whether APS has complied
20 with the Settlement and the Decision.

21
22 Based on my review of the Settlement, the Decision, and the information provided to date
23 by APS, I have concluded that:

24
25 1. APS has not complied with the Settlement and the Decision in the following
26 important respects:

27 a. The Settlement and the Decision do not provide for the “direct build”
28 option approach that APS is pursuing.

29 b. APS has not demonstrated that the Yuma RFP was unsuccessful either in
30 whole or in part as required by Paragraph 75(c) of the Settlement, and in

fact, its July 13, 2006 Application and direct case testimony suggest that the RFP was quite successful;

c. APS' apparent reliance on Paragraph 76 of the Settlement to justify its "direct build" option is not justified; and

d. APS' claim that its conduct of the Yuma RFP is consistent with the Settlement and the Decision is not supported by the facts.

2. APS has attempted to circumvent the clear intent and requirements of the Settlement and the Decision by proposing a "direct build" option outside of the RFP process. In that regard, APS has carefully avoided using the term "bid" to characterize its "direct build" option, but the "direct build" option is for all intents and purposes a faux "bid," albeit an untimely, incomplete and nonbinding bid whose risk allocations and future costs are unknown.

3. The "direct build" option is really a "half-baked" proposal which does not satisfy even the threshold criteria of APS' own RFP. As a result, efforts by APS to compare the "direct build" option to the comprehensive firm bids submitted in response to the Yuma RFP are misplaced. In particular, APS has not indicated how its "direct build" option would address construction and operating risks - in stark contrast to the requirements imposed on bidders that responded to the RFP.

4. APS has only itself to fault for the manner in which, and time period over which, it conducted the Yuma RFP. Further, it has created an administrative burden on the Commission and all parties by submitting a premature and insufficiently supported Application.

Q.35 Could you please summarize your recommendations?

A.35 The Commission should direct APS to execute a contract on an expedited timeframe with the winning third-party bidder. This would be consistent with the results of a successful Yuma RFP process, the Settlement and the Decision, and would preserve the integrity of

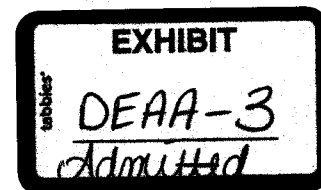
1 competitive bidding processes in Arizona. This would also facilitate APS' goal of having
2 the generation resources in question in service in time for the summer of 2008.

3
4 In addition, the Commission should take this opportunity to indicate that APS' effort to
5 advance its "direct build" option is contrary to the Settlement and the Decision, and
6 confirm that, should APS hereafter desire to build or acquire a power plant with an in-
7 service date before 2015, it must first conduct a competitive bidding process that is
8 designed to give the competitive wholesale market a fair and legitimate opportunity to
9 meet APS' needs.

10
11 **Q.36 Does that complete your direct testimony?**

12 **A.36** Yes, it does.

ORIGINAL



*Distributed Energy Association of Arizona
PO Box 10594
Phoenix, AZ 85064-0594*

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December 18, 2006

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

RE: IN THE MATTER OF ARIZONA PUBLIC SERVICE COMPANY - APPLICATION FOR
AUTHORIZATION
DOCKET NO. E-01 345A-08-0464

Dear Sir or Madam:

Enclosed is the Distributed Energy Association of Arizona ("DEAA") Direct Testimony of
Robert Baltes for Docket No. E-01345A-08-0464 in opposition to the pending application.

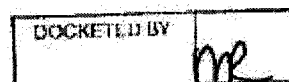
Sincerely,

*Distributed Energy Association of Arizona
C/O Robert T. Baltes, President
9601 N. 19th Street
Phoenix, AZ 85020
602-677-7388
rbaltes@cox.net*

Arizona Corporation Commission
DOCKETED

DEC 18 2006

CC: Docket Control (original plus 13 copies)
Parties of record (by e-mail)



1 SETTLEMENT AGREEMENT

2 DIRECT TESTIMONY OF ROBERT T. BALTES ON BEHALF OF THE

3 DISTRIBUTED ENERGY ASSOCIATION OF ARIZONA.

4 (DOCKET No. E-01345A-06- 0464)

5

6 December 18, 2006

7

8

9 INTRODUCTION AND SUMMARY

10

11 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS

12 A. My name is Robert T. Baltès, and my business address is 9601 N.19th Street, Phoenix,
13 AZ 85020.

14

15 Q. BY WHO ARE YOU EMPLOYED AND WHOM DO YOU REPRESENT IN YOUR
16 TESTIMONY?

17 A. I am an individual and I am working on behalf of the Arizona Cogeneration Assn,
18 (AzCA), and DBA Distributed Energy Association of Arizona (DEAA).

19

20 Q. WOULD YOU PROVIDE SOME INFORMATION ON THE DEAA AND
21 DESCRIBE THEIR INTEREST IN THIS PROCEEDING?

22 A. The DEAA is a nonprofit coalition of interested parties organized for exchanging
23 information on distributed generation and advocating for policies that permit safe,
24 reliable and economically viable use of distributed types of generation. DEAA members
25 represent utilities customers, gas and electric utilities, environmental consultants,
26 developers and energy industry consultants. DEAA has interest in this proceeding due to
27 the impact the proposed changes would have on customers in terms of their ability to
28 effectively implement and derive economic and operational benefits from a wide range of
29 distributed generation (DG) alternatives in Arizona.

30

1 Q. WOULD YOU DISCUSS YOUR EDUCATIONAL BACKGROUND AND
2 BUSINESS EXPERIENCE?

3 A. I attended schools in Wisconsin and received a BS degree in electrical engineering
4 from the University of Wisconsin in 1961. I have been taking courses at the University
5 of Phoenix in their masters of business administration program. I founded
6 Baltes/Valentino, Ltd (including predecessor companies) in 1972, which was sold in
7 2002. I became interested in Energy issues and Cogeneration in 1968 while working for
8 an Iowa consulting engineering company. During the years at BVA, I designed many
9 Cogeneration facilities that operated in Arizona such as the Phoenician Resort's system.
10 I remain a Certified Cogeneration Professional and a Registered Professional Engineer
11 while I continue to educate people that are interested in alternative energy, and especially
12 'Renewable Energy' alternatives. I presently serve as President of the Distributed Energy
13 Association of AZ (DEAA). I am a past Chairman of the Cogeneration Committee for the
14 American Consulting Engineers Council (ACEA) and a founding member of the Arizona
15 Cogeneration Association (ACA). Also, I served on the AZ Technical Board of
16 Registration. I provided energy information consultation services for businesses,
17 governmental, and educational organizations including: The Arizona Department of
18 Administration, Arizona Corporation Commission, Arizona State University, Northern
19 Arizona University, Arizona Western College, Maricopa Community Colleges, City of
20 Phoenix and ADOT.

21

22 Q. WAS YOUR TESTIMONY PREPARED BY YOU OR UNDER YOUR
23 DIRECTION?

24 A. Yes.

25

26 Q. WOULD YOU SUMMARIZE YOUR TESTIMONY?

27 A. My testimony focuses on the necessity for a fair and equitable resolution herein
28 concerning Distributed Generation (DG). DEAA and its members are within the scope of
29 our competitive suppliers of electric power intended to be benefited by the provisions of
30 the APS rate case Settlement Agreement, which the Commission approved (with certain

1 modifications) in Decision No. 67744. In that regard, Article IX specifically provides
2 that distributed generation entities shall be afforded the opportunity to participate in
3 various competitive power procurements (or RFPs) to be conducted from 2005 forward.
4 Accordingly, DEAA and its members could be directly and substantially affected by
5 proceedings in which the Commission has occasion to interpret and apply the provisions
6 of Article IX of the Settlement Agreement, and related provisions of Decision No. 67744.

7 This proceeding is of such a nature. In responding to the request set forth in
8 APS's July 13, 2006 Application, the Commission will be required to interpret and apply
9 the provisions of Sections 74 and 75 of the Settlement Agreement, which contain the
10 possibility of an "exception" to the moratorium which exists on APS's self-building or
11 acquisition of electric generating facilities until 2015. That "exception" possibility
12 includes the types of RFPs in which DEAA's members might seek to compete.
13 Therefore, DEAA and its members could be directly and substantially affected by a
14 decision issued by the Commission in this proceeding. DEAA requests the ACC to
15 require APS to fulfill its agreement, which requires APS to not self-build additional
16 power supplies through 2015.

17

18 **Q. WHAT OTHER ISSUES TROUBLE DEAA CONCERNING APS'S REQUEST?**

19 A. If the commission were to grant APS their request herein there may be precedents for
20 APS to request a reversal of other portions of the order. One portion of the order that
21 affects DG is the Environmental Portfolio Standard and other Renewables Programs on
22 Page 23 of the Opinion and Order. The precedents being set, what would stop APS from
23 requesting self-build of all or most of this section?

24 A second issue in like manner, APS could request a reversal of the DG portion of the
25 REST Rules Decision 69127 where DG represents 30% of the program.

26

27 **Q. WHAT DOES YOUR ORGANIZATION WANT FROM THIS HEARING?**

28 A. DEAA wants the ACC to require APS to fulfill its agreement, which requires APS
29 will not self-build additional power supplies through 2015.

1

2 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

3 A. Yes.

4

5

6

7

8

9

10

11